

**BEARTOOTH OIL & GAS COMPANY**

---

P.O. Box 2564

Billings, Montana 59103

(406) 259-2451

July 9, 1985

**RECEIVED**

**JUL 11 1985**

Bureau of Land Management  
Moab District Office  
P. O. Box 970  
Moab, Utah 84532

DIVISION OF OIL  
GAS & MINING

Gentlemen:

Enclosed please find original and three copies of APD's covering the drilling of our North Bar X Federal Nos 3 and 4 wells in Grand County, Utah for your approval.

Yours very truly,

BEARTOOTH OIL & GAS COMPANY

*James G. Routson*  
James G. Routson  
Consulting Petroleum Engineer

cc: Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114 ✓

Mr. Ken Currey  
P. O. Box 1491  
Fruita, Colorado 81521

Rec'd MDO JUL 11 1985

SUBMIT IN DUPLICATE\*  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

2000' FSL, 2000' FEL, Section 6

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

20 miles northwest of Mack, Colorado

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

640'

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

Hancock well in 5

3575'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5303 GL, 5314 KB

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" new	24# H-40 STC	300'	175 sacks Class "G" to surface
7-7/8"	4-1/2" new	10.5# J-55 LTC	3992'	175 sacks RFC

5. LEASE DESIGNATION AND SERIAL NO.

U-41378

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

North Bar X Federal No. 4

10. FIELD AND POOL, OR WILDCAT

Undesignated

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

NW1/4SE1/4 6-17S-26E

12. COUNTY OR PARISH

Grand

13. STATE

Utah

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

240

16. NO. OF ACRES IN LEASE

496.07

19. PROPOSED DEPTH

3992'

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START\*

August 10, 1985

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED James G. Routson Consulting  
James G. Routson TITLE Petroleum Engineer

DATE July 9, 1985

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY /s/ GENE NODINE

TITLE DISTRICT MANAGER

DATE 05 AUG 1985

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

\*See Instructions On Reverse Side

FLARING OR VENTING OF  
GAS IS SUBJECT OF NTL 4-A  
DATED 1/1/80

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

State of Utah - Doom

Beartooth Oil and Gas Company  
Well No. North Bar X Federal 4  
Sec. 6, T. 17 S., R. 26 E.  
Grand County, Utah  
Lease U-41378

CONDITIONS OF APPROVAL

A. DRILLING PROGRAM

Both casing strings will be tested to a minimum of 1000 psi.

All pressure tests, B.O.P.E. and casing will be recorded on driller's log.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Order 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to the field representative to insure compliance.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Office. If operations are to be suspended, prior approval of the District Office will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the Area Office within a minimum of 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding. If the spudding occurs on a weekend or holiday, the written report will be submitted on the following regular work day.

In accordance with Onshore Order No. 1 this well will be reported on Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continued each month until the well is plugged and abandoned. This report will be sent to the District Office, P.O. Box 970, Moab, Utah 84532.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Office in accordance with requirements of NTL-3A.

If a replacement rig is needed for completion operations, A Sundry Notice (Form 3160-5) to that effect will be filed for prior approval from the District Office, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations verbal approval to bring on a replacement rig will be approved through the District Office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Moab District Manager.

If the well is to be completed for production the Area Office is to be contacted in order to set up a pre-production conference. When the well is placed in a producing status the District Office is to be notified by telegram or other written communication within five working days.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

No well abandonment operations will be commenced without the prior approval of the District Office. In the case of newly-drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Office. A Subsequent Report of Abandonment (Form 3160-5) will be sent to the District Office within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Office, or the appropriate surface managing agency. Upon completion of approved plugging, a dry hole marker will be erected in accordance with 43 CFR 3162.6. The top of the marker will be closed or capped. The following minimum information will be permanently placed on the marker; "Fed" or "Ind", as applicable, "Lease number", "Well number", location of well by 1/41/4 section, township, and range.

The operator or his contractor will notify the Grand Resource Area at (801) 259-8193 forty-eight (48) hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

The following seed mixture will be used:

<u>Species</u>		<u>lbs/acre</u>
<u>Grasses</u>		
Agropyron spicatum	Bluebunch wheatgrass	1
Hilaria jamesii	Galleta (Curlygrass)	1
Oryzopsis hymenoides	Indian ricegrass	1
<u>Forbs</u>		
Melilotus officinalis	Yellow sweetclover	1/2
Medicago sativa	Alfalfa	1/2
	(Spreador II, Nomad, Ladak)	
<u>Shrubs</u>		
Eurotia lanata	Winterfat (Whitesage)	2
		6 lbs/acre

Broadcast seed will be applied at double the above rate.

Final location release will be issued when the seeding is shown to be successful (when perennial vegetation is established).

Your contact with the District Office is:

Greg Noble, Petroleum Engineer      Office Phone: (801)259-6111  
Home Phone: \_\_\_\_\_

District Address:

82 East Dogwood, P.O. Box 970  
Moab, Utah 84532

Your contact with the Grand Resource Area Office is:

Jeff Robbins      Office Phone: (801)259-8193  
Home Phone: (801)259-7964

Area Office Address:

Sand Flats Road, P.O. Box M  
Moab, Utah 84532

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE  
(Other instructions on  
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Hancock well in 5

3575'

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GAS & MINING

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5303 GL, 5314 KB

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August 10, 1985

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PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
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7-7/8"	4-1/2" new	10.5# J-55 LTC	3992'	175 sacks RFC

1. Surface formation is the Mancos.
2. Anticipated geologic markers are: Frontier 2914', Dakota 3304', Morrison 3428, Salt Wash 3862'.
3. Gas is anticipated in the Dakota, Morrison and in the Salt Wash. No oil or other minerals are anticipated. No water sands are expected.
4. Proposed casing program: See Item No. 23 above.
5. Pressure control equipment: See attached well control plan and schematic of drilling contractor's BOP stack. BOP's will be tested before drilling out from under surface casing and checked daily.
6. Air or mist drilling will be used to drill the surface hole unless water is encountered. If water is encountered, chemical-gel type mud will be used. The well will be air drilled from under surface casing to total depth.
7. Auxiliary equipment: See well control plan.

(continued on page 2)

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24.

SIGNED

James G. Routson

TITLE

Consulting  
Petroleum Engineer

DATE

July 9, 1985

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

DATE: 7/12/85

BY: John R. B...

WELL SPACING: 165-11

\*See Instructions On Reverse Side

Application for Permit to Drill, Deepen, or Plug Back  
North Bar X Federal No. 4  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  Section 6-T17S-R26E  
Grand County, Utah  
Lease U-41378

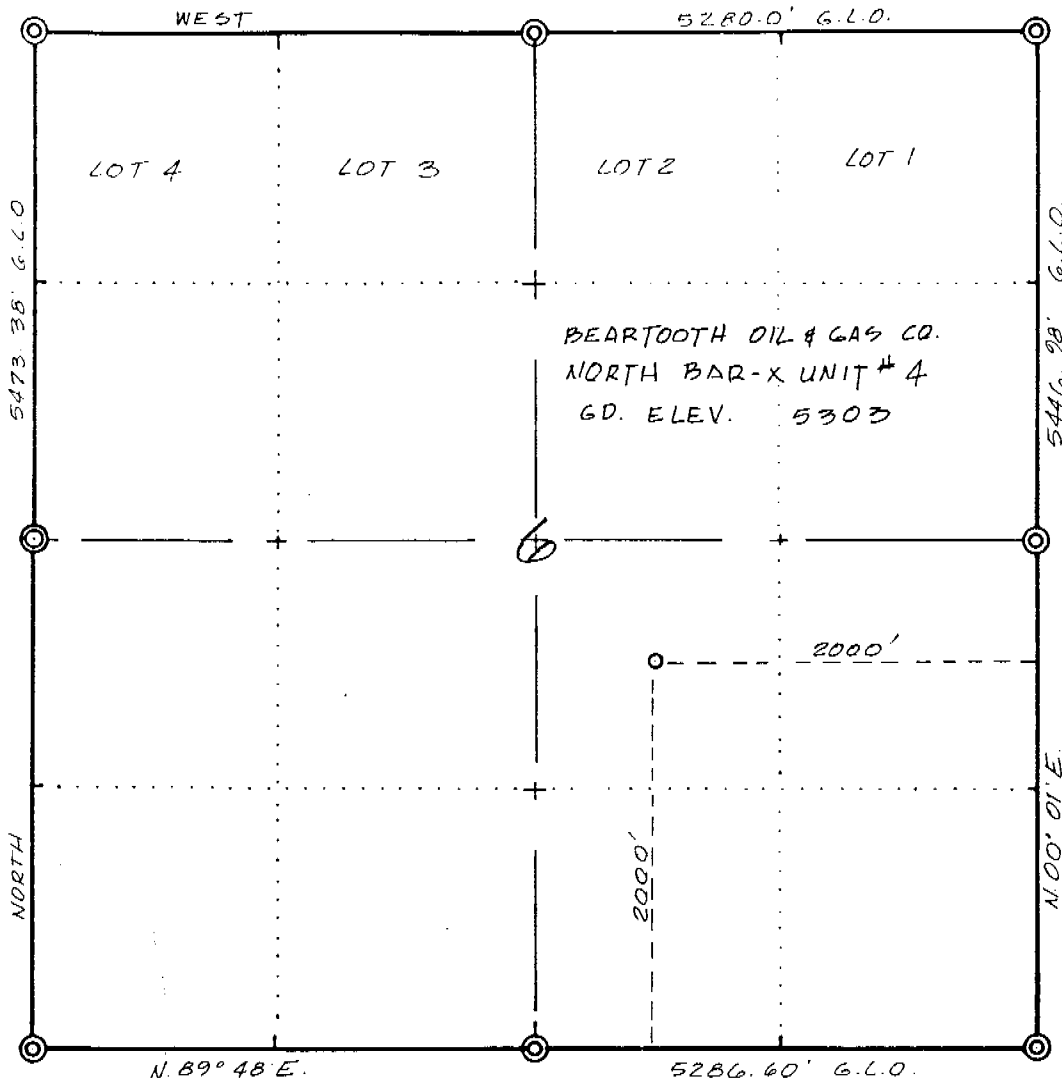
Page 2

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8. The logging program will consist of a DIL log from TD to base of surface casing, and GR-FDC-CNL logs from TD to above the Frontier. No cores or DST's are planned.
9. No abnormal pressures or temperatures are anticipated. No poisonous gas is anticipated.
10. Anticipated spud date is August 10, 1984. Completion operations should commence within 30 days of rig release.
11. Survey plats are attached.
12. The gas is dedicated to Mesa Pipeline.
13. The spacing unit will be the N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$  of Section 6, as per Utah Cause No. 165-11 allowing 2 - 240 acre wells on one spacing unit. This order was approved February 28, 1985.
14. Designation of Operator forms from Tenneco will be forwarded to the BLM in Moab, Utah.
15. The well will be drilled under Tenneco's bond.

PLAT #1  
LOCATION PLAT

SEC. 6, T. 17S, R. 26E OF THE S.L.M.



SCALE  
500' 0' 1000'

**LEGEND**

- STANDARD LOCATION OF GLO SECTION CORNERS
- GLO CORNERS FOUND
- WELL LOCATION STAKED.

**REFERENCE DOCUMENTS**

1925 GLO PLAT

BAR-X WASH, UT-CO  
QUADRANGLE, USGS

THIS WELL LOCATION PLAT WAS PREPARED FOR BEARTOOTH OIL & GAS CO.  
TO LOCATE THE NORTH BAR-X UNIT #4, 2000' F.S.L. &  
2000' F.E.L. IN THE NW 1/4 SE 1/4, OF SECTION 6, T. 17S., R. 26E.  
OF THE S.L.M. GRAND COUNTY, UTAH

**SURVEYOR'S CERTIFICATE**

I, LARRY D. BECKER A REGISTERED LAND SURVEYOR IN  
THE STATE OF UTAH DO HEREBY CERTIFY THAT THIS  
SURVEY WAS MADE UNDER MY DIRECT SUPERVISION  
AND THAT THIS PLAT REPRESENTS SAID SURVEY.

*Larry D. Becker*




SURVEYED	9-31-82	ENERGY SURVEYS & ENGINEERING CORP.	715 HORIZON DRIVE, SUITE 330 GRAND JUNCTION, CO 81501 (303) 245-7221	SCALE 1"=1000'
DRAWN	10-2-84			JOB NO.
CHECKED				SHEET OF



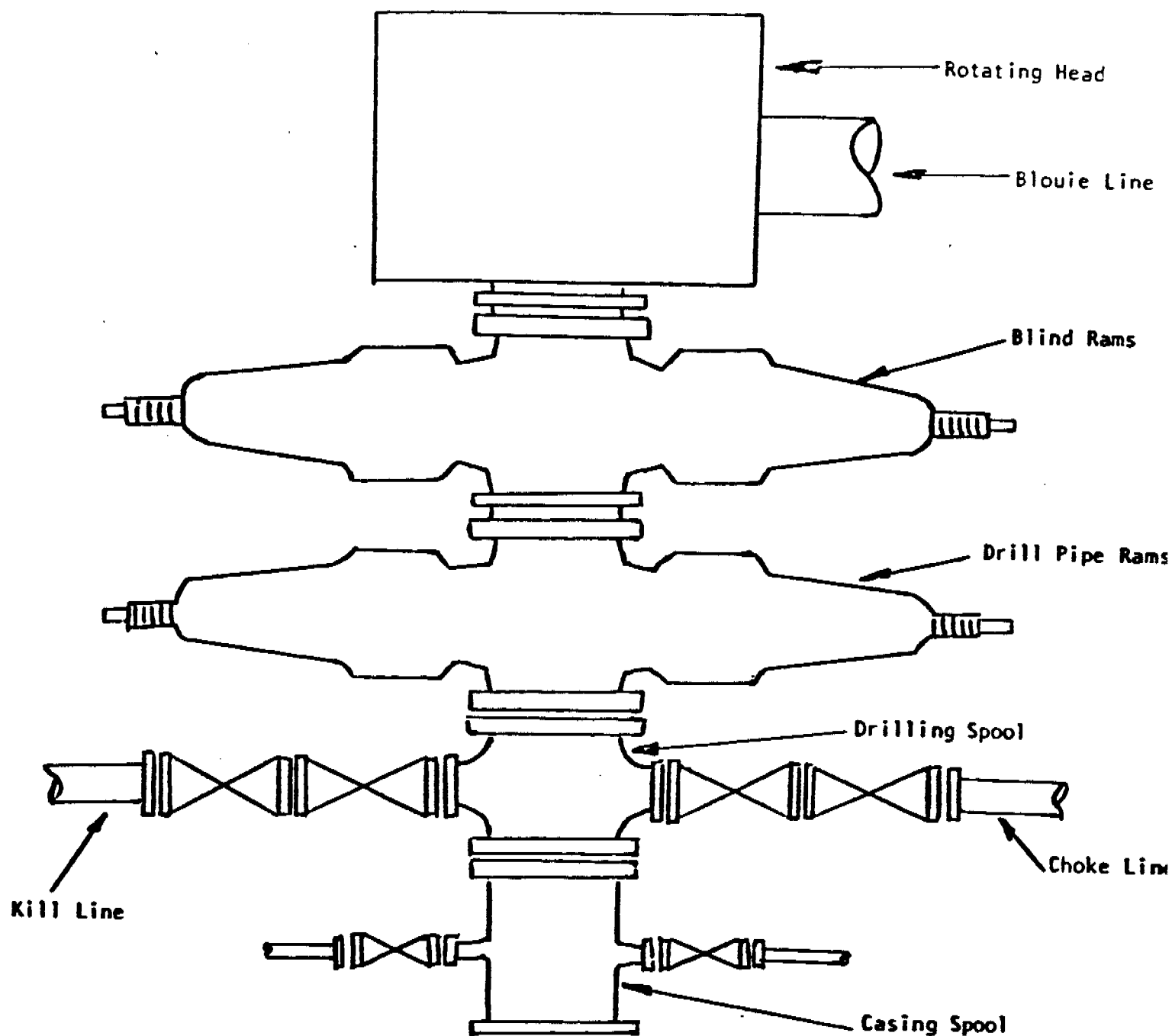
Beartooth Oil & Gas Company  
North Bar-X Federal No.4  
WELL CONTROL PLAN

1. Surface Casing: 8-5/8" O.D., 24#/ft., Grade H-40, ST&C, set at 300' or deeper, cemented with pump and plug method back to the surface or bottom of cellar.
2. Casinghead Flange: 8-5/8" x 8"-900 Series casinghead with two 2" 2000 psi L.P. outlets.
3. Intermediate Casing: None
4. Blowout Preventor: An 8" 3000 psig W.P. double gate hydraulic shaffer BOP (or equivalent) with drill rams and blind rams. All fill, kill and choke lines will be minimum of 2" 2000 psi W.P. A Grant rotating head will be used while air and mist drilling. BOP's will be worked daily. Blind rams will be checked during trips. BOP's will be tested to 1000 psi prior to drilling shoe joint on surface casing.
5. Auxiliary Equipment: (a) Drill pipe floets will be allowed at contractor's discretion. (b) Visual monitoring of air returns will be maintained. (c) Upper kelly cock will be used. (d) Stabbing valve will be kept on floor.
6. Anticipated bottom hole pressure is less than 900 psi at 3304 or a gradient of .272 psi/ft or less. No abnormal temperatures or hydrogen sulfide gas are anticipated.

  
James G. Routson  
Petroleum Engineer

Air drilled wells using 900 series wellhead equipment.

Interval from 300' to total depth.



SURFACE USE PROGRAM  
BEARTOOTH OIL & GAS COMPANY  
NORTH BAR X #4  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  Section 6-T17S-R26E  
Grand County, Utah

1. Existing Roads

See Maps #1 and #2 and Plat #1. This proposed well is about 16 air miles northwest of Mack, Colorado. It is reached by going 9.5 miles west of Mack on Old Highway 6 & 5 to Mesa County 2 Road; turn right and go 4.1 miles up the road to the State Line fence road (Utah-Colorado line); then turn right and go 4.3 miles up (north) the State line fence road; turn left (west) and go 1.3 miles to the beginning of the 0.2 mile of new access road. Beartooth Oil & Gas Company has an access road right-of-way for the non County portions of this road. The R/W grant number is U-53802. Beartooth will maintain the existing access roads in conjunction with the county and area oil and gas operators.

2. Access Roads to be Constructed and Reconstructed

See Map #1. The 0.2 mile of new road will be constructed as BLM-Moab Class III well access road. It will have an 18 foot wide driving surface with a total disturbed width of 35 to 55 feet depending on topography. The road will be ditched and crowned on flat ground and insloped 2% on sidehill cuts. Drainage design will utilize natural land contour and water will be carried across the road with water dips. No culverts will be used. No fences, modifications, nor cattleguards are necessary.

Road surfacing materials will be the existing native materials. The maximum road grade is 5%-6%. The road is flagged with orange flagging. The new access road is colored red on Map #1.

3. Location of Existing Wells

See Map No. 3

4. Location of Existing and/or Proposed Facilities if Well is Productive

(a) On Well Pad - See Plat No. 5

(b) Off Well Pad - See Facilities Map. Beartooth proposes to construct 2,500 feet of 2" buried steel pipeline. This line is depicted on Map #1. The pipeline will tie the North Bar X #4 to Beartooth's existing pipeline system. The tie in point will be on the North Bar X #2 well pad. This pipeline will be authorized as an amendment to Beartooth's pipeline right-of-way #U-53849.

5. Location and Type of Water Supply

The water source for this well is West Salt Creek. The pickup point is on Old Highway 6 & 50 approximately 2.5 miles west of Mack, Colorado.

6. Source of Construction Materials

No construction materials will be used other than native materials. Soil from cuts will be used in fills. No outside material will be brought in.

7. Methods for Handling Waste Disposal

Cuttings will be buried in the reserve pit at clean up. Garbage and other waste material will be contained in a trash cage. This cage will be dumped at an approved sanitary land fill. Human waste will be disposed of in chemically treated sanitary pits.

Drilling fluids will be contained in the reserve pit and left to evaporate. Any fluids produced during testing operations will be collected in a test tank. If a test tank is not available, the fluids will be contained in the reserve pit. Any spills of oil, gas, salt water or noxious fluid will be cleaned up and removed.

If the well is productive, produced water will be disposed of on site for 30 days only, or 90 days with the permission of the District Manager. After that time, application will be made for approval of permanent disposal method in compliance with old MMS Order NTL-2B, and the rules and regulations of the State of Utah.

8. Ancillary Facilities

Beartooth proposes to upgrade about 0.5 miles of existing ranch road in the SW $\frac{1}{4}$  Section 6, Township 17 South, Range 26 East, and construct 0.5 miles of new road in the SE $\frac{1}{4}$  Section 1, Township 17 South, Range 25 East, across BLM lands. This road would be maintained as a BLM Moab-Class III road. The road will serve as a pumper route and tie the Beartooth North Bar X # 1, 2, 3 and 4 gas wells together. The road will save about 15 miles of "driving around" by our pumpers.

Beartooth proposes to authorize this road as an amendment to our existing access road right-of-way number U-53802. Such authorization is hereby requested. The necessary filing fee (\$50.00) is being sent to you with this application for permit to drill.

9. Wellsite Layout

See Plat #2 - Pit and Pad Layout

See Plat #3 - Cross Sections of Pit and Pad

See Plat #4 - Rig Layout

The location will be constructed large enough to accommodate the drilling rig and associated equipment with allowance made for future completion and fracturing equipment.

The location construction will begin by stripping and stockpiling all available (4-6") topsoil. The stockpile will be along the north and south ends of the location.

9. (continued)

The reserve pit will be constructed along the west side of the well pad. The Pit will be fenced on three sides during drilling and closed on the fourth side at rig release. The fence will be maintained through completion and while the pit area is drying.

10. Plans for Reclamation of the Surface

If the well is productive, the reserve pit will be allowed to dry and then backfilled. All of the area not necessary for production will be resloped, covered with available topsoil and revegetated using a seed formula supplied by the BLM.

If the well is abandoned, the entire area of disturbance will be returned to a reasonable contour approximating the topography of the surrounding area. The topsoil will be distributed over the recontoured area and revegetated using the appropriate seed formula.

Clean-up will begin after completion rig release and resloping should be completed by the Fall of 1984.

11. Surface Ownership

All lands involving new construction are Federal lands.

12. Other Information

This APD includes an access road right-of-way application. See Item 8. The well site is on the Mancos desert floor. The vegetation is sparse and includes juniper, sagebrush, western wheatgrass, Indian rice grass and a few annual plants.

13. Lessee's or Operator's Representatives and Certification

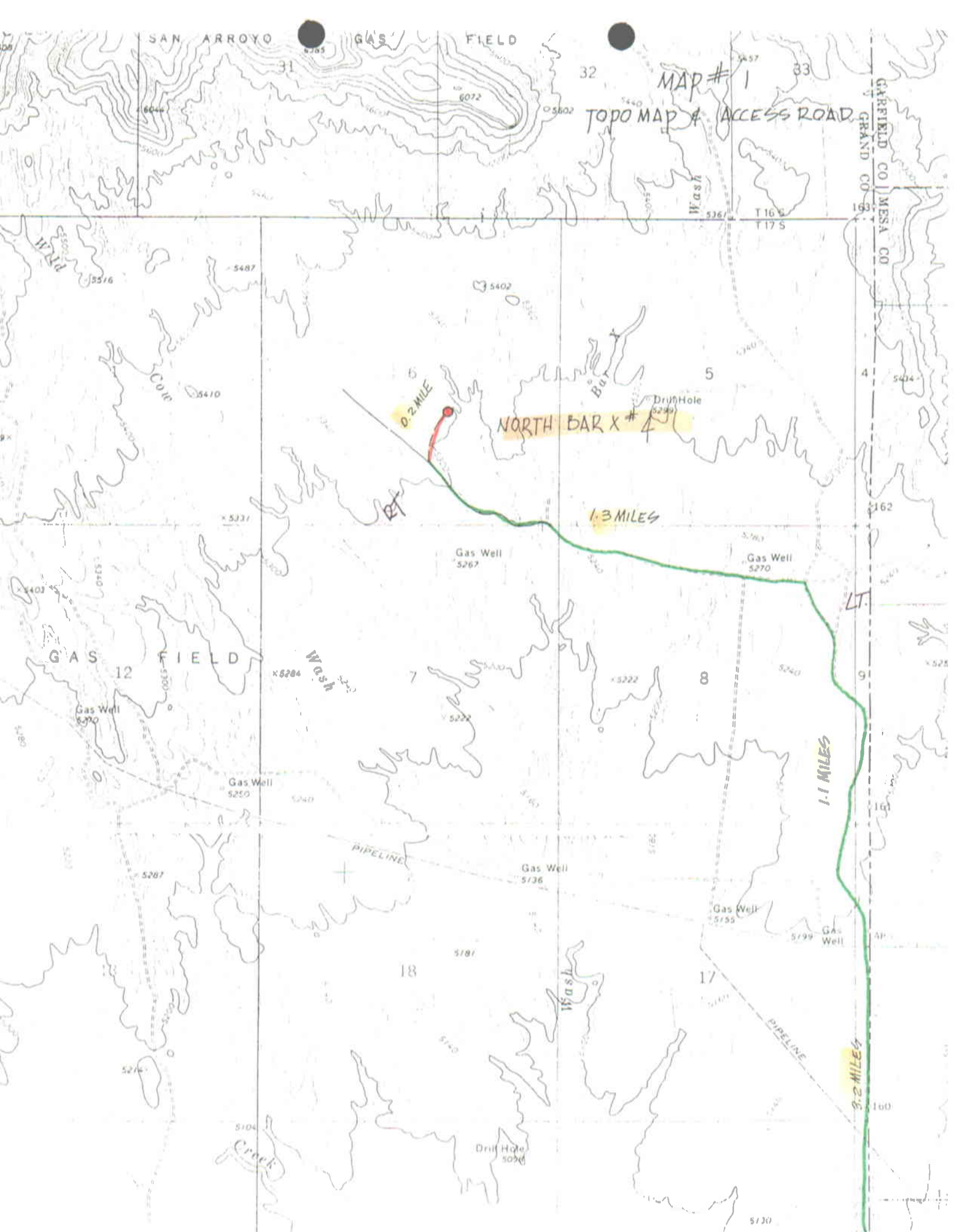
James G. Routson  
Beartooth Oil & Gas Company  
P. O. Box 2564  
Billings, Montana 59103  
Office Phone: 406-259-2451  
Home Phone: 406-245-8797

Ken Currey  
Beartooth Oil & Gas Company  
P. O. Box 1491  
Fruita, Colorado 81521  
Office/Home: 303-858-3257  
303-245-3660, Unit 5858

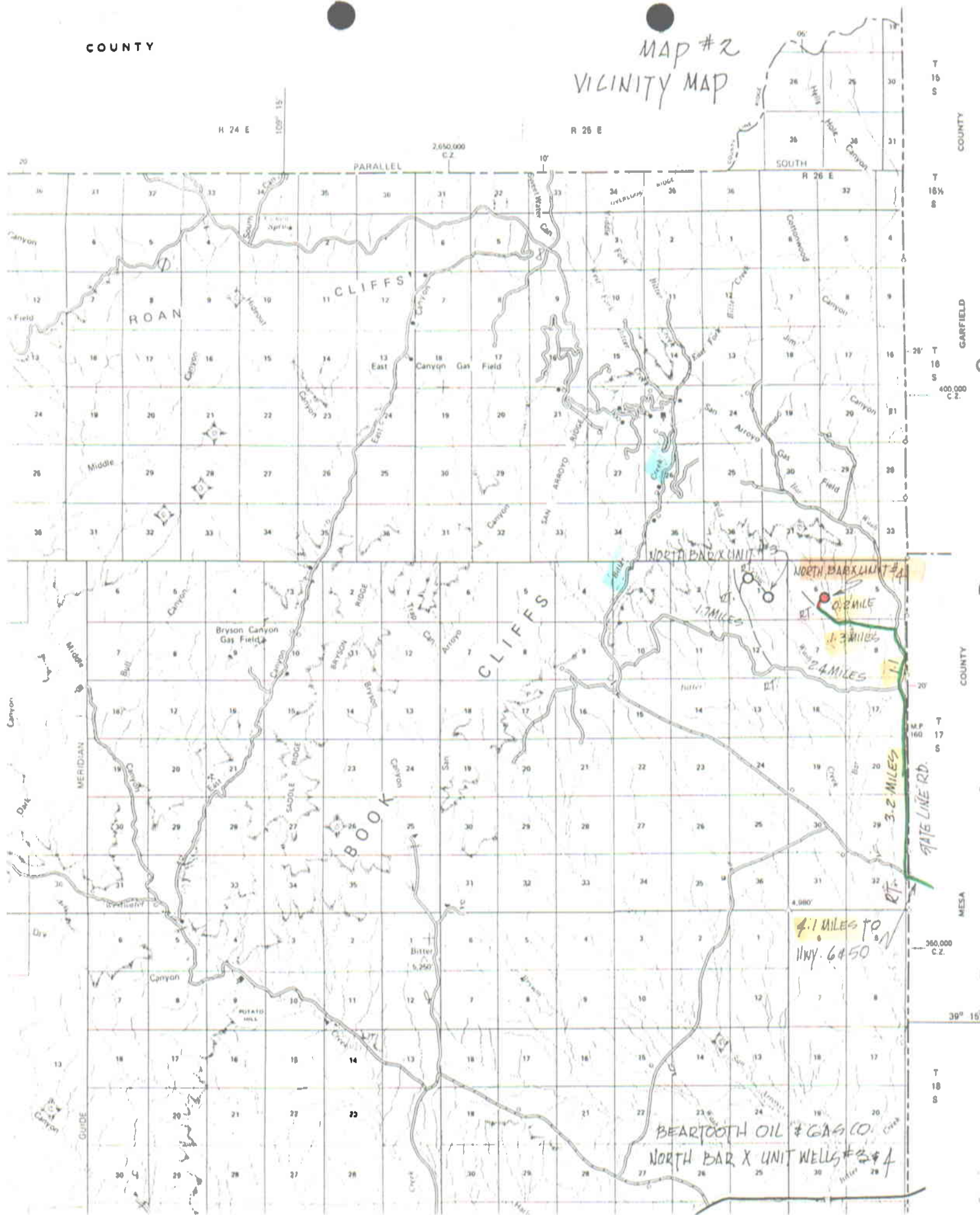
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Beartooth Oil & Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

July 9, 1985  
Date

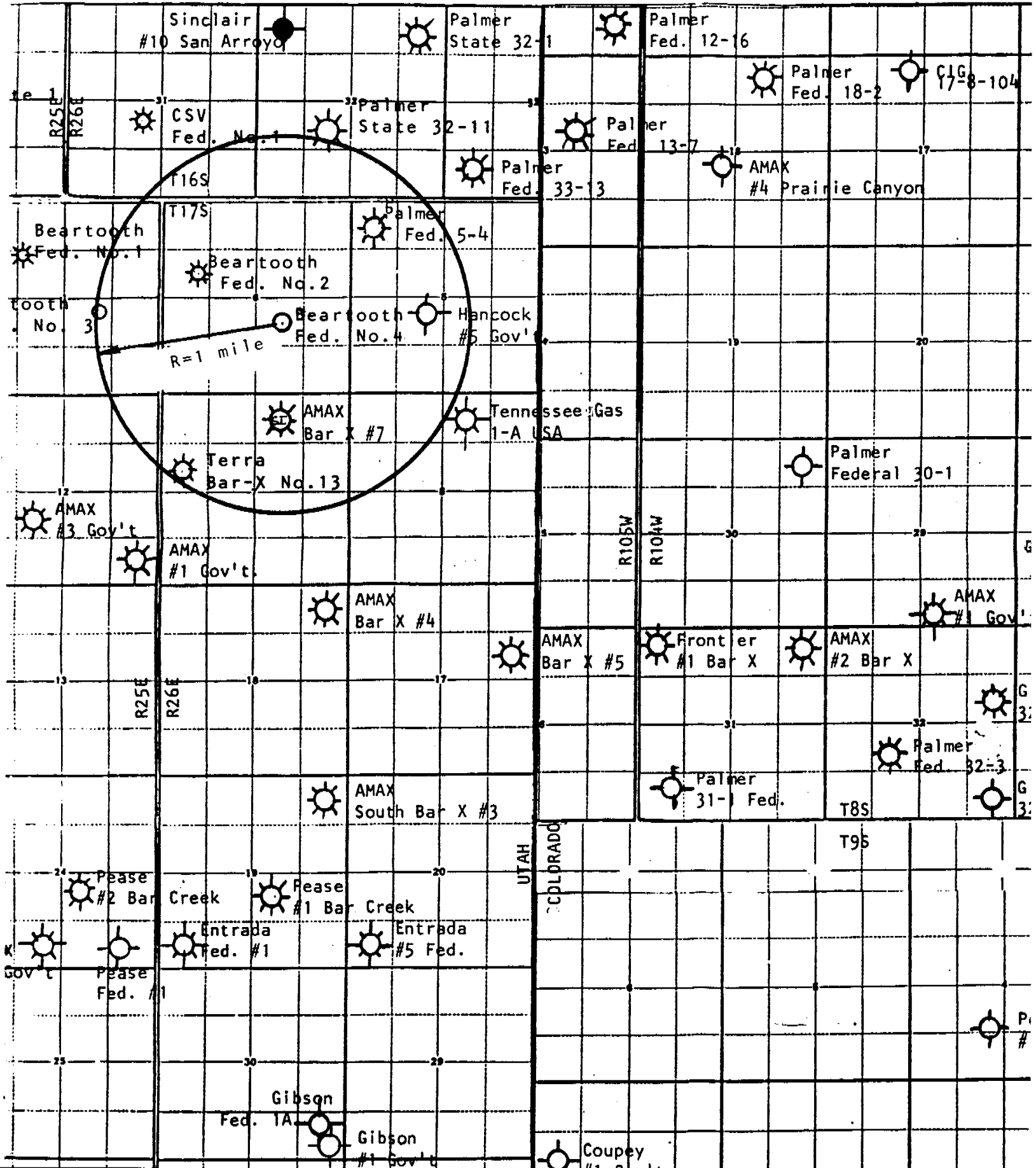
James G. Routson  
James G. Routson  
Consulting Petroleum Engineer



MAP #2  
VICINITY MAP

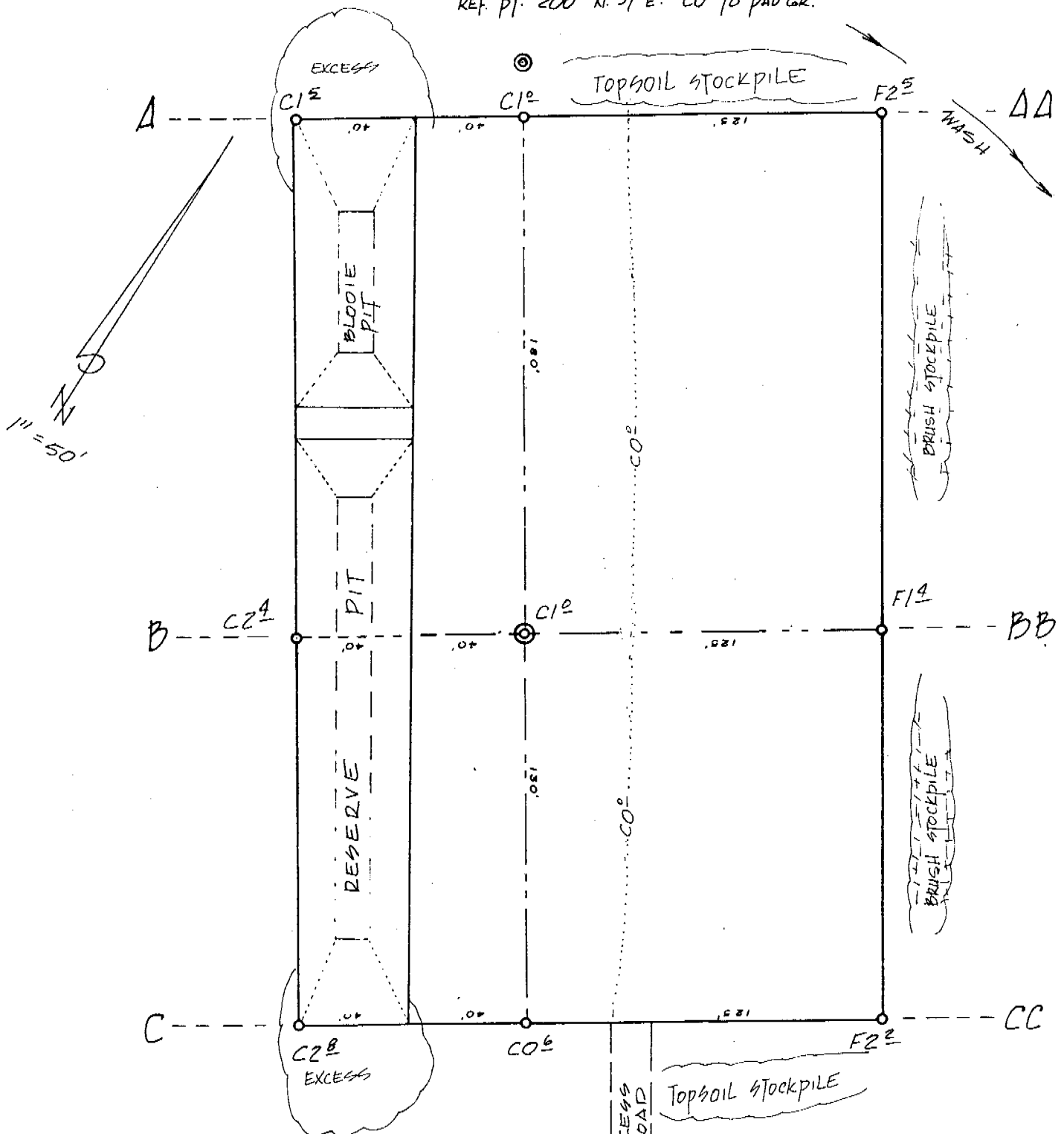




Township 8S & 17S, Range 104W & 26E, County Garfield, Mesa, & Grand

PLA # 2  
PIT & PAD LAYOUT

REF. PT. 200' N. 37° E. CO<sup>1</sup> TO PAD GR.



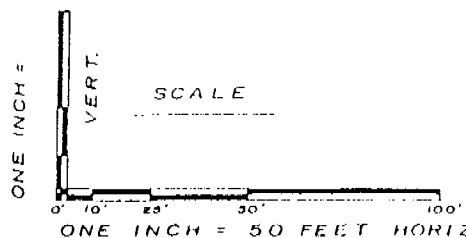
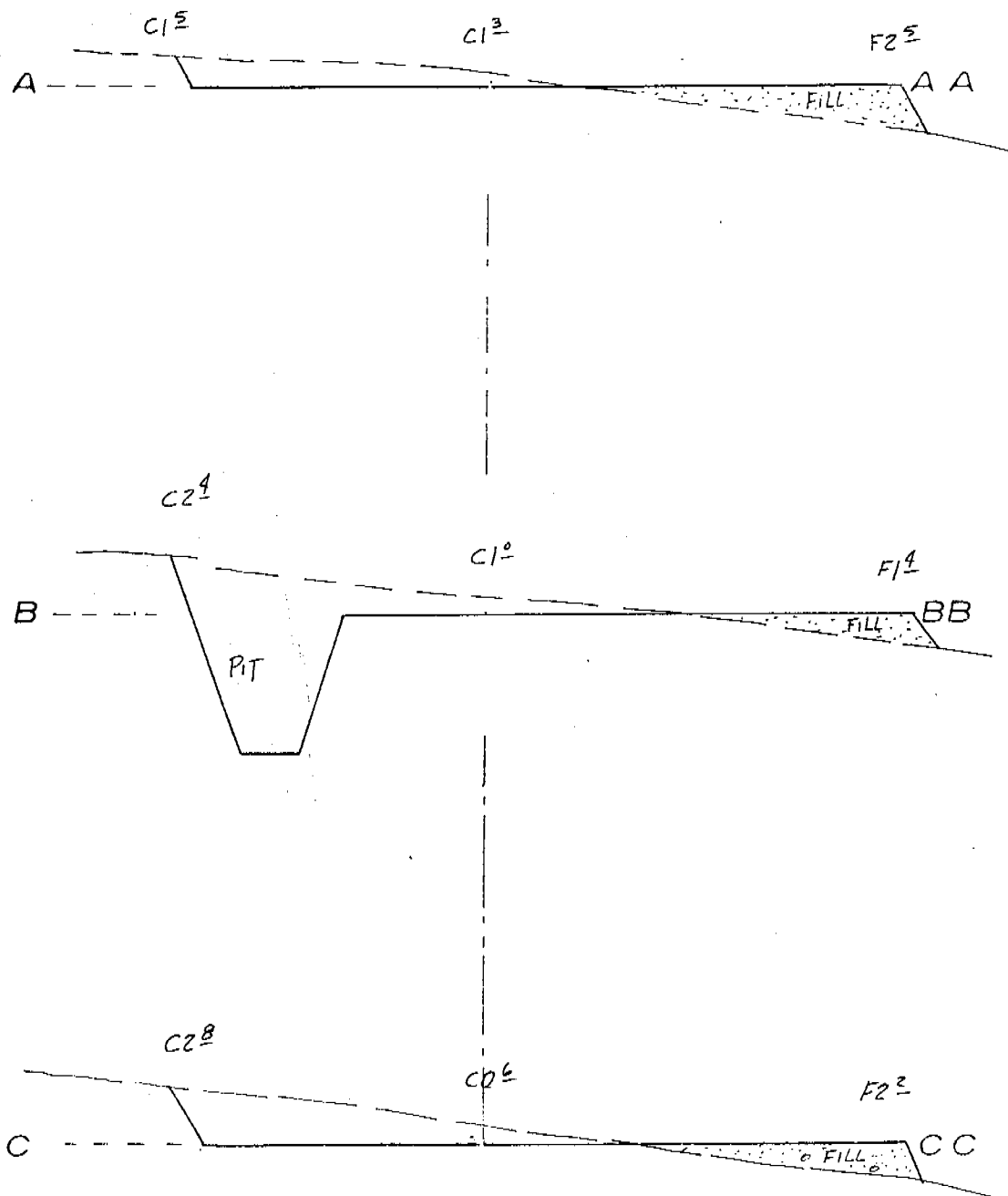
ESTIMATED C.Y. MATERIAL  
 CUT 4114 C.Y.  
 FILL 976 C.Y.  
 TOPSOIL 1177 C.Y.  
 EXCESS 196 C.Y.

REF. PT. 200' 437° W  
 C1<sup>1</sup> TO PAD GR.

BEARTOOTH OIL & GAS CO.  
 NORTH BAR X # 4

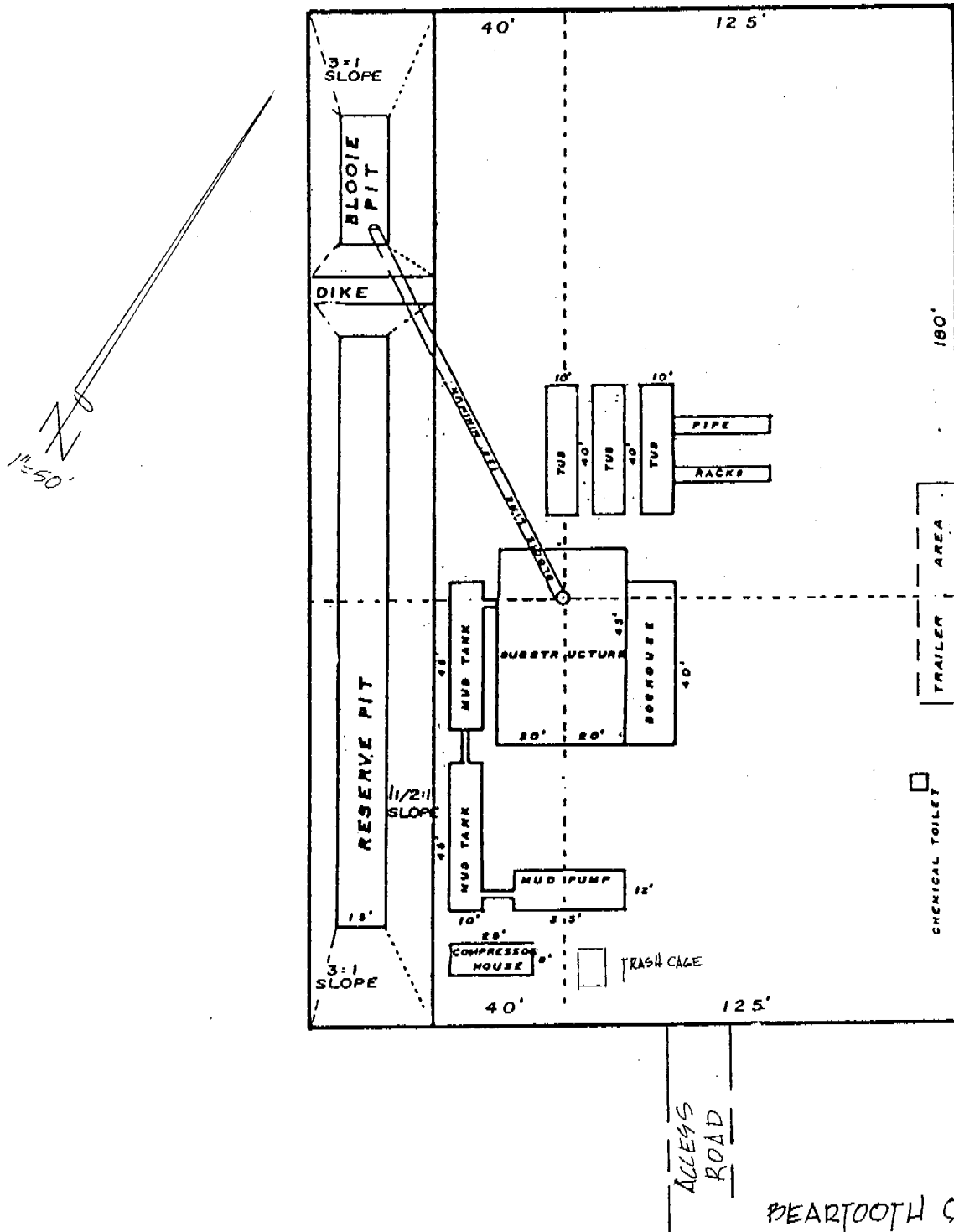
PLAT # 3

CROSS-SECTIONS  
OF PIT & PAD



BEARTOOTH OIL & GAS CO.  
NORTH BARX # 4

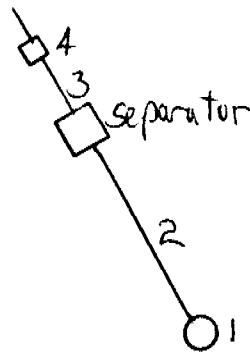
# PLAT # 4 RIG LAYOUT



BEARTOOTH OIL & GAS CO.  
NORTH BARX # 4

# PLAT NO. 5

## FACILITIES SCHEMATIC



1. Wellhead will be an 8-5/8" Larkin Fig. 92 or equivalent. Tubing head will be a 4 1/2" x 6"-900 Series with two 2" 3000 psi screwed valves. Tree will be 2" screwed x 2000 psi W.P.
2. Line between wellhead and separator will be approximately 100 feet in length and constructed of 2-3/8" .218 wall seamless, welded, wrapped and buried approximately 5 feet deep.
3. Line between separator and meter will be 4" or 4.028 OD seamless, welded, coated, wrapped and buried, and will be approximately 25 feet in length.
4. Meter run will be American 2" run, or equivalent, 1000 psi static rating, 100" of water differential rating.
5. Pit will be 10'x 10', enclosed by dikes and fenced.

OPERATOR Beartooth Oil & Gas Co. DATE 7-16-85  
WELL NAME North Bow X Fed. #4  
SEC NW SE 6 T 17S R 26E COUNTY Grand

43-019-31194  
API NUMBER

Fed  
TYPE OF LEASE

CHECK OFF:



PLAT



BOND



NEAREST WELL



LEASE



FIELD



POTASH OR  
OIL SHALE

PROCESSING COMMENTS:

Need water permits

APPROVAL LETTER:

SPACING: ☐ A-3 \_\_\_\_\_ UNIT



c-3-a

165-11 4/28/85  
CAUSE NO. & DATE



c-3-b



c-3-c

STIPULATIONS:

1-Water



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple - 3 Triad Center - Suite 350 - Salt Lake City, UT 84180-1203 - 801-538-5340

July 19, 1985

Beartooth Oil & Gas Company  
P. O. Box 2564  
Billings, Montana 59103

Gentlemen:

Re: Well No. North Bar X Federal 4 - NW SE Sec. 6, T. 17S, R. 26E  
2000' FSL, 2000' FEL - Grand County, Utah

Approval to drill the above-referenced gas well is hereby granted in accordance with the Order of Cause No. 165-11 dated February 28, 1985 subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

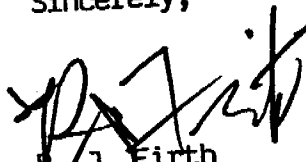
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.

Page 2  
Beartooth Oil & Gas Company  
Well No. North Bar X Federal 4  
July 17, 1985

4. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-019-31194.

Sincerely,



R. J. Firth  
Associate Director, Oil & Gas

as  
Enclosures  
cc: Branch of Fluid Minerals



## DIVISION OF OIL, GAS AND MINING

SPOUDDING INFORMATION

API #43-019-31194

NAME OF COMPANY: BEARTOOTH OIL & GASWELL NAME: NORTH BAR X FEDERAL #4SECTION NW SE 6 TOWNSHIP 17S RANGE 26E COUNTY GrandDRILLING CONTRACTOR Veco Drilling, IncRIG # SPUDDED: DATE 11-1-85TIME 4:00 PMHOW Air Drilled - 12 $\frac{1}{4}$ " to 313'DRILLING WILL COMMENCE 11-1-85 Veco Drilling Rig #1REPORTED BY Marilyn WakehamTELEPHONE # (406) 259-2451DATE 11-4-85 SIGNED Pam Kenna

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED

NOV 04 1985

DIVISION OF OIL  
GAS & MINING

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR  
BURTON W. HANCOCK

3. ADDRESS OF OPERATOR  
1799 Hamilton Avenue, San Jose, CA 95125

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

1094' FNL, 1267' FWL, Section 3

14. PERMIT NO.  
43-019-31195

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5682 GL, 5687 KB

5. LEASE DESIGNATION AND SERIAL NO.

U-05079

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
3-4

10. FIELD AND POOL, OR WILDCAT  
Undesignated

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

NW $\frac{1}{4}$  NW $\frac{1}{4}$  Sec. 3-T17S-R25E

12. COUNTY OR PARISH 13. STATE  
Grand Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

Status Report

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Well is currently shut-in, waiting on completion tools. Expect to complete in the Dakota Formation in November, 1985.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Jane D. Brantson*

TITLE

Consulting  
Petroleum Engineer

DATE

10/31/85

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate  
(Other instructions on reverse side)

Form approved  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED

NOV 06 1985

DIVISION OF OIL  
GAS & MINING

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR  
Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR  
P. O. Box 2564, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

2000' FSL, 2000' FEL - Section 6

14. PERMIT NO.  
43-019-31194

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5303' GL, 5314' KB

5. LEASE DESIGNATION AND SERIAL NO.  
U-41378

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
North Bar-X Federal No. 4

10. FIELD AND POOL, OR WILDCAT  
Undesignated

11. SEC., T., R., M., OR BLM. AND  
SURVEY OR AREA  
NW 1/4 SE 1/4 Section 6-T17S-R26E

12. COUNTY OR PARISH 13. STATE  
Grand Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

Status Report

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

/ Spudded 12-1/4" hole at 4:00 p.m., 11/1/85, with Veco Drilling, Inc., Rig No. 1.

Drilled to 313'. Ran 8-5/8", 24#, J-55 casing to 304' KB. Cemented to surface with 175 sx Class "G", 3% CaCl<sub>2</sub>, 1/4#/sack Celloflake. Pressure tested casing, BOPs, casing head to 1000 psig before drilling out.

18. I hereby certify that the foregoing is true and correct.

SIGNED James G. Routson  
James G. Routson

TITLE Cons. Petro. Engr.

DATE 11/4/85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Budget Bureau No. 1004-0135  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

U-41378

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

North Bar-X No. 4

10. FIELD AND POOL, OR WILDCAT

Undesignated

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

NW $\frac{1}{4}$ SE $\frac{1}{4}$  Sec 6-T17S-R26E

12. COUNTY OR PARISH

Grand

13. STATE

UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

OIL WELL ☐ GAS WELL ☒ OTHER

RECEIVED

NOV 14 1985

DIVISION OF OIL  
GAS & MINING

2. NAME OF OPERATOR

Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

2000' FSL, 2000' FEL, Section 6

14. PERMIT NO.

43-019-31194

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

5303' GL, 5314' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANE

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

Status Report

(Note: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled 7-7/8" hole to 4014'. Ran 4-1/2", 11.6#, N-80 casing to 3996' KB.  
Cemented with 275 sx Thixotropic cement. Rig released 10:00 a.m., 11/7/85.  
Will start completion about 11/25/85.

Log Tops: Dakota Silt 3210'  
Dakota Sand 3299'  
Morrison 3539'

18. I hereby certify that the foregoing is true and correct

SIGNED

James G. Routson

TITLE

Con. Petro. Engr.

DATE

11/12/85

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

(See instructions on reverse side)

Expires August 31, 1985

10

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	DRY <input type="checkbox"/>	Other <input type="checkbox"/>	5. LEASE DESIGNATION AND SERIAL NO. U-41378	
1b. TYPE OF COMPLETION:		NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. REVR. <input type="checkbox"/>	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Beartooth Oil & Gas Company						7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P. O. Box 2564, Billings, Montana 59103						8. FARM OR LEASE NAME Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State laws) At surface 2000' FSL, 2000' FEL At top prod. interval reported below Same as above At total depth Same as above						9. WELL NO. North Bar-X No. 4	
14. PERMIT NO. 43-019-31194						12. COUNTY OR PARISH Grand	
DATE ISSUED 7/17/85						13. STATE Utah	
15. DATE SPUDDED 11/1/85	16. DATE T.D. REACHED 11/6/85	17. DATE COMPL. (Ready to prod.) 11/26/85	18. ELEVATIONS (DF, RKB, RT, GB, ETC.)* 5303 GL, 5314 KB		19. ELEV. CASINGHEAD 5305		
20. TOTAL DEPTH, MD & TVD 4014	21. PLUG, BACK T.D., MD & TVD 3904	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY →	ROTARY TOOLS 0 - TD	CABLE TOOLS -		
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* Dakota sand - 3326 - 3480						25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN <u>GR-PDC-CNL</u> , <u>OIL</u> , <u>GR-CBL-VDI</u>						27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)							
CASINO SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD		AMOUNT PULLED	
8-5/8"	24#, J-55	304	12-1/4"	175 sx Class "G" (to sfc)		None	
4-1/2"	11.6#, N-80	3996	7-7/8"	275 sx RFC (cement top-2750')		None	
29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
None					2-3/8"	3482	None
31. PERFORATION RECORD (Interval, size and number) .31" diameter holes, 10 total, as follows: 3341, 3345, 3347, 3360, 3362, 3400, 3409, 3462, 3465, 3475				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. DEPTH INTERVAL (MD) None AMOUNT AND KIND OF MATERIAL USED			
33. PRODUCTION							
DATE FIRST PRODUCTION 11/23/85		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Shut-in	
DATE OF TEST 11/23/85	HOURS TESTED 1	CHOKE SIZE 3/4"	PROD'N. FOR TEST PERIOD →	OIL—BBL. 97.25	GAS—MCF. 2334	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS. 175	CASING PRESSURE 175	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF. 2334	WATER—BBL.	OIL GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented						TEST WITNESSED BY Ralph Snow	
35. LIST OF ATTACHMENTS None - logs sent directly by Service Companies							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED James G. Routson		TITLE Cons. Petroleum Engr.				DATE 11/25/85	

\* (See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Dakota Sand	3326	3368	Gas	Mancos	Surface	Same
Dakota Sand	3400	3413	Gas	Frontier	2980	Same
Dakota Sand	3457	3480	Gas	Dakota Silt	3210	Same
				Dakota Sand	3298	Same
				Morrison	3559	Same
				Salt Wash	3843	Same

EXPRESS MAIL ROUTING SLIP

PAM

AK 8:35 12-12

TAMI

TH 8:45 12-12

VICKY

VC 9:05 12-12

CLAUDIA

CJ 9:06 12/12

STEPHANE

SB 10:15 "

CHARLES

CP 10:19 12-12

RULA

RM 10:30 12/12

MARY ALICE

MAP 10:36 12/12

CONNIE

CD 1042 12-12

MILLIE

PAM

AK 1055 12/12

RECEIVED

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
4241 State Office Building  
Salt Lake City, UT 84114

DEC 05 1985

DIVISION OF OIL  
GAS & MINING\*REPORT OF WATER ENCOUNTERED DURING DRILLING\*

Well Name & Number North Bar-X Federal No. 4

Operator Beartooth Oil & Gas Company Address P. O. Box 2564, Billings MT 59103

Contractor Veco Drilling, Inc. Address P. O. Box 1705, Grand Junction CO 81502

Location NW 1/4 SE 1/4 Sec. 6 T. 17S R. 26E County Grand

Water Sands

	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	From	To	Flow Rate or Head	Fresh or Salty
1.	None Encountered			
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops

Dakota Sand 3326, Dakota Sand 3400, Dakota Sand 3457

Remarks

- NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
- (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



**BEARTOOTH OIL & GAS COMPANY**

---

P.O. Box 2564

Billings, Montana 59103

(406) 259-2451

July 9, 1985

**RECEIVED**

**JUL 11 1985**

Bureau of Land Management  
Moab District Office  
P. O. Box 970  
Moab, Utah 84532

**DIVISION OF OIL  
GAS & MINING**

Gentlemen:

Enclosed please find original and three copies of APD's covering the drilling of our North Bar X Federal Nos 3 and 4 wells in Grand County, Utah for your approval.

Yours very truly,

BEARTOOTH OIL & GAS COMPANY

*James G. Routson*  
James G. Routson  
Consulting Petroleum Engineer

cc: Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114 ✓

Mr. Ken Currey  
P. O. Box 1491  
Fruita, Colorado 81521

Rec'd MDO JUL 11 1985

SUBMIT IN DUPLICATE\*  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

2000' FSL, 2000' FEL, Section 6

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

20 miles northwest of Mack, Colorado

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

640'

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

Hancock well in 5

3575'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5303 GL, 5314 KB

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" new	24# H-40 STC	300'	175 sacks Class "G" to surface
7-7/8"	4-1/2" new	10.5# J-55 LTC	3992'	175 sacks RFC

5. LEASE DESIGNATION AND SERIAL NO.

U-41378

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

North Bar X Federal No. 4

10. FIELD AND POOL, OR WILDCAT

Undesignated

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

NW1/4SE1/4 6-17S-26E

12. COUNTY OR PARISH

Grand

13. STATE

Utah

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

240

16. NO. OF ACRES IN LEASE

496.07

19. PROPOSED DEPTH

3992'

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START\*

August 10, 1985

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED James G. Routson Consulting  
James G. Routson TITLE Petroleum Engineer

DATE July 9, 1985

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY /s/ GENE NODINE

TITLE DISTRICT MANAGER

DATE 05 AUG 1985

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

\*See Instructions On Reverse Side

FLARING OR VENTING OF  
GAS IS SUBJECT OF NTL 4-A  
DATED 1/1/80

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

State of Utah - Doom

Beartooth Oil and Gas Company  
Well No. North Bar X Federal 4  
Sec. 6, T. 17 S., R. 26 E.  
Grand County, Utah  
Lease U-41378

CONDITIONS OF APPROVAL

A. DRILLING PROGRAM

Both casing strings will be tested to a minimum of 1000 psi.

All pressure tests, B.O.P.E. and casing will be recorded on driller's log.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Order 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to the field representative to insure compliance.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Office. If operations are to be suspended, prior approval of the District Office will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the Area Office within a minimum of 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding. If the spudding occurs on a weekend or holiday, the written report will be submitted on the following regular work day.

In accordance with Onshore Order No. 1 this well will be reported on Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continued each month until the well is plugged and abandoned. This report will be sent to the District Office, P.O. Box 970, Moab, Utah 84532.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Office in accordance with requirements of NTL-3A.

If a replacement rig is needed for completion operations, A Sundry Notice (Form 3160-5) to that effect will be filed for prior approval from the District Office, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations verbal approval to bring on a replacement rig will be approved through the District Office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Moab District Manager.

If the well is to be completed for production the Area Office is to be contacted in order to set up a pre-production conference. When the well is placed in a producing status the District Office is to be notified by telegram or other written communication within five working days.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

No well abandonment operations will be commenced without the prior approval of the District Office. In the case of newly-drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Office. A Subsequent Report of Abandonment (Form 3160-5) will be sent to the District Office within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Office, or the appropriate surface managing agency. Upon completion of approved plugging, a dry hole marker will be erected in accordance with 43 CFR 3162.6. The top of the marker will be closed or capped. The following minimum information will be permanently placed on the marker; "Fed" or "Ind", as applicable, "Lease number", "Well number", location of well by 1/41/4 section, township, and range.

The operator or his contractor will notify the Grand Resource Area at (801) 259-8193 forty-eight (48) hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

The following seed mixture will be used:

<u>Species</u>		<u>lbs/acre</u>
<u>Grasses</u>		
Agropyron spicatum	Bluebunch wheatgrass	1
Hilaria jamesii	Galleta (Curlygrass)	1
Oryzopsis hymenoides	Indian ricegrass	1
<u>Forbs</u>		
Melilotus officinalis	Yellow sweetclover	1/2
Medicago sativa	Alfalfa	1/2
	(Spreador II, Nomad, Ladak)	
<u>Shrubs</u>		
Eurotia lanata	Winterfat (Whitesage)	2
		6 lbs/acre

Broadcast seed will be applied at double the above rate.

Final location release will be issued when the seeding is shown to be successful (when perennial vegetation is established).

Your contact with the District Office is:

Greg Noble, Petroleum Engineer      Office Phone: (801)259-6111  
Home Phone: \_\_\_\_\_

District Address:

82 East Dogwood, P.O. Box 970  
Moab, Utah 84532

Your contact with the Grand Resource Area Office is:

Jeff Robbins      Office Phone: (801)259-8193  
Home Phone: (801)259-7964

Area Office Address:

Sand Flats Road, P.O. Box M  
Moab, Utah 84532

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

2000' FSL, 2000' FEL, Section 6

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

20 miles northwest of Mack, Colorado

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

640'

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

Hancock well in 5

3575'

16. NO. OF ACRES ON LEASE

496.07

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

240

19. PROPOSED DEPTH

3992'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DP, RT, GR, etc.)

5303 GL, 5314 KB

22. APPROX. DATE WORK WILL START\*

August 10, 1985

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" new	24# H-40 STC	300'	175 sacks Class "G" to surface
7-7/8"	4-1/2" new	10.5# J-55 LTC	3992'	175 sacks RFC

1. Surface formation is the Mancos.
2. Anticipated geologic markers are: Frontier 2914', Dakota 3304', Morrison 3428, Salt Wash 3862'.
3. Gas is anticipated in the Dakota, Morrison and in the Salt Wash. No oil or other minerals are anticipated. No water sands are expected.
4. Proposed casing program: See Item No. 23 above.
5. Pressure control equipment: See attached well control plan and schematic of drilling contractor's BOP stack. BOP's will be tested before drilling out from under surface casing and checked daily.
6. Air or mist drilling will be used to drill the surface hole unless water is encountered. If water is encountered, chemical-gel type mud will be used. The well will be air drilled from under surface casing to total depth.
7. Auxiliary equipment: See well control plan.

(continued on page 2)

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

James G. Routson

TITLE

Consulting  
Petroleum Engineer

DATE

July 9, 1985

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

DATE: 7/12/85

BY: John R. B...

WELL SPACING: 165-11

\*See Instructions On Reverse Side

Application for Permit to Drill, Deepen, or Plug Back  
North Bar X Federal No. 4  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  Section 6-T17S-R26E  
Grand County, Utah  
Lease U-41378

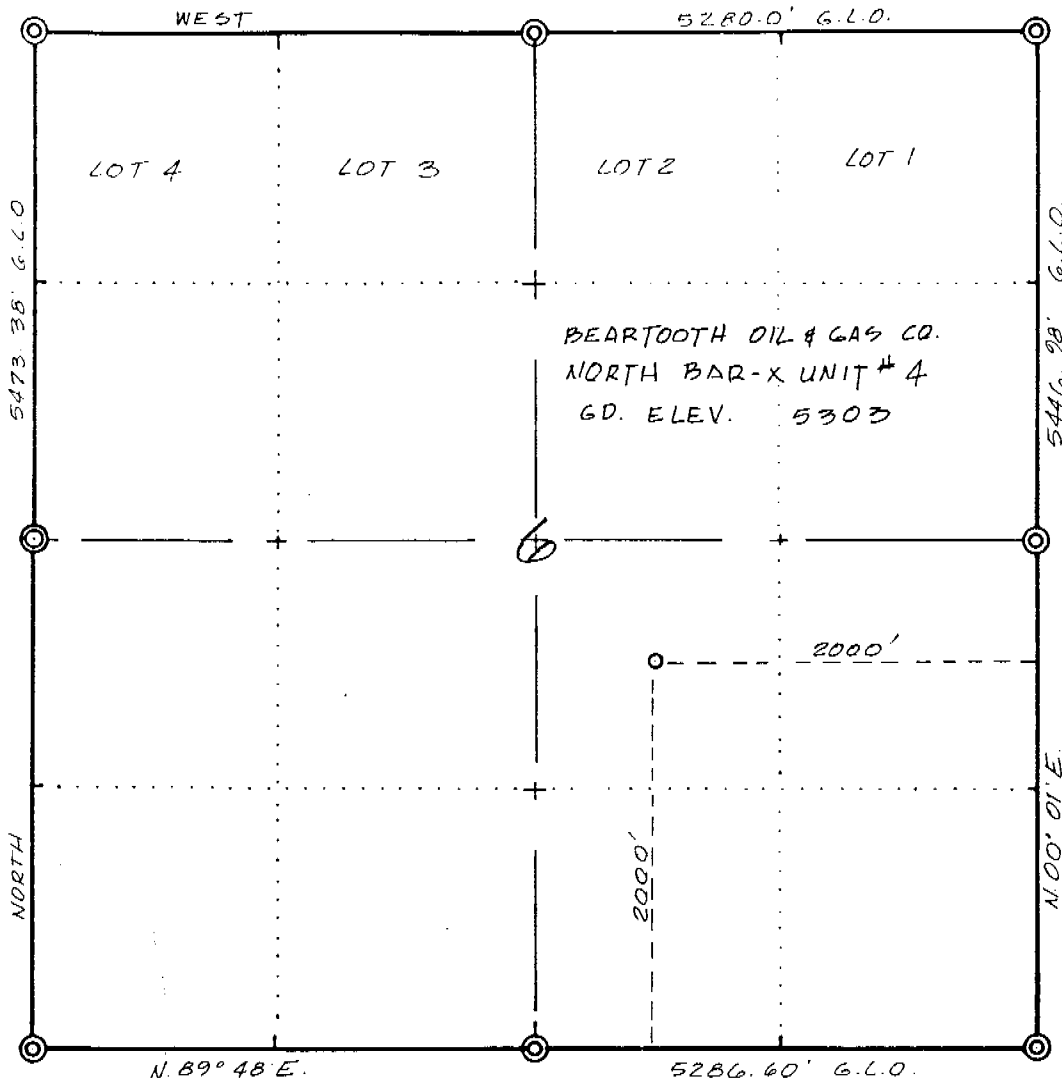
Page 2

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8. The logging program will consist of a DIL log from TD to base of surface casing, and GR-FDC-CNL logs from TD to above the Frontier. No cores or DST's are planned.
9. No abnormal pressures or temperatures are anticipated. No poisonous gas is anticipated.
10. Anticipated spud date is August 10, 1984. Completion operations should commence within 30 days of rig release.
11. Survey plats are attached.
12. The gas is dedicated to Mesa Pipeline.
13. The spacing unit will be the N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$  of Section 6, as per Utah Cause No. 165-11 allowing 2 - 240 acre wells on one spacing unit. This order was approved February 28, 1985.
14. Designation of Operator forms from Tenneco will be forwarded to the BLM in Moab, Utah.
15. The well will be drilled under Tenneco's bond.

PLAT #1  
LOCATION PLAT

SEC. 6, T. 17S, R. 26E OF THE S.L.M.



**LEGEND**  
 (C) STANDARD LOCATION OF GLO SECTION CORNERS  
 (●) GLO CORNERS FOUND  
 (O) WELL LOCATION STAKED.  
**REFERENCE DOCUMENTS**  
 1925 GLO PLAT  
 BAR-X WASH, UT-CO  
 QUADRANGLE, USGS

THIS WELL LOCATION PLAT WAS PREPARED FOR BEARTOOTH OIL & GAS CO.  
 TO LOCATE THE NORTH BAR-X UNIT #4, 2000' F.S.L. &  
2000' F.E.L. IN THE NW 1/4 SE 1/4, OF SECTION 6, T. 17S., R. 26E.  
 OF THE S.L.M. GRAND COUNTY, UTAH

**SURVEYOR'S CERTIFICATE**

I, LARRY D. BECKER A REGISTERED LAND SURVEYOR IN  
 THE STATE OF UTAH DO HEREBY CERTIFY THAT THIS  
 SURVEY WAS MADE UNDER MY DIRECT SUPERVISION  
 AND THAT THIS PLAT REPRESENTS SAID SURVEY.

*Larry D. Becker*




SURVEYED	9-31-82	ENERGY SURVEYS & ENGINEERING CORP.	715 HORIZON DRIVE, SUITE 330 GRAND JUNCTION, CO 81501 (303) 245-7221	SCALE 1"=1000'
DRAWN	10-2-84			JOB NO.
CHECKED				SHEET OF



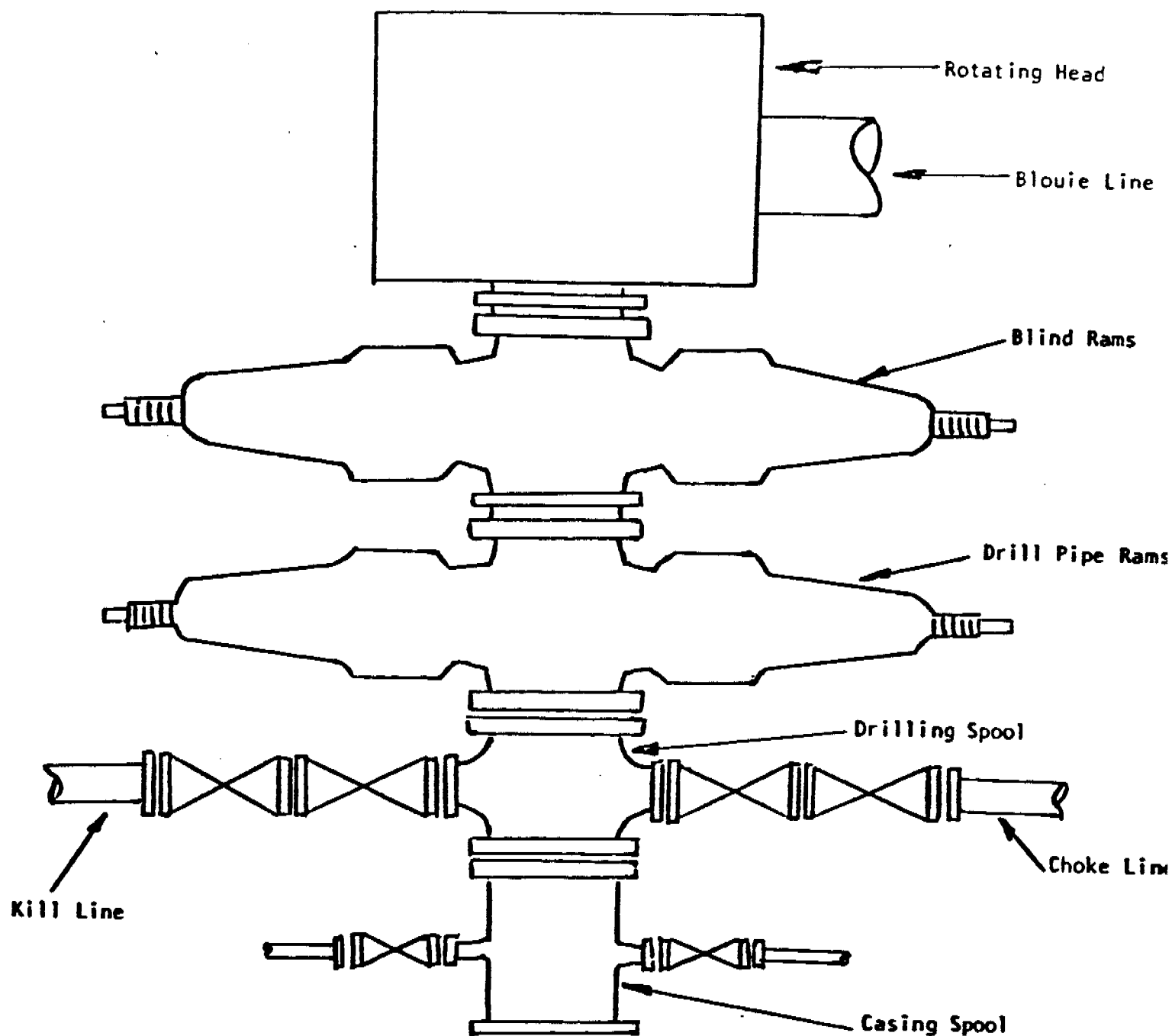
Beartooth Oil & Gas Company  
North Bar-X Federal No. 4  
WELL CONTROL PLAN

1. Surface Casing: 8-5/8" O.D., 24#/ft., Grade H-40, ST&C, set at 300' or deeper, cemented with pump and plug method back to the surface or bottom of cellar.
2. Casinghead Flange: 8-5/8" x 8"-900 Series casinghead with two 2" 2000 psi L.P. outlets.
3. Intermediate Casing: None
4. Blowout Preventor: An 8" 3000 psig W.P. double gate hydraulic shaffer BOP (or equivalent) with drill rams and blind rams. All fill, kill and choke lines will be minimum of 2" 2000 psi W.P. A Grant rotating head will be used while air and mist drilling. BOP's will be worked daily. Blind rams will be checked during trips. BOP's will be tested to 1000 psi prior to drilling shoe joint on surface casing.
5. Auxiliary Equipment: (a) Drill pipe floets will be allowed at contractor's discretion. (b) Visual monitoring of air returns will be maintained. (c) Upper kelly cock will be used. (d) Stabbing valve will be kept on floor.
6. Anticipated bottom hole pressure is less than 900 psi at 3304 or a gradient of .272 psi/ft or less. No abnormal temperatures or hydrogen sulfide gas are anticipated.

  
\_\_\_\_\_  
James G. Routson  
Petroleum Engineer

Air drilled wells using 900 series wellhead equipment.

Interval from 300' to total depth.



SURFACE USE PROGRAM  
BEARTOOTH OIL & GAS COMPANY  
NORTH BAR X #4  
NW $\frac{1}{4}$ SE $\frac{1}{4}$  Section 6-T17S-R26E  
Grand County, Utah

1. Existing Roads

See Maps #1 and #2 and Plat #1. This proposed well is about 16 air miles northwest of Mack, Colorado. It is reached by going 9.5 miles west of Mack on Old Highway 6 & 5 to Mesa County 2 Road; turn right and go 4.1 miles up the road to the State Line fence road (Utah-Colorado line); then turn right and go 4.3 miles up (north) the State line fence road; turn left (west) and go 1.3 miles to the beginning of the 0.2 mile of new access road. Beartooth Oil & Gas Company has an access road right-of-way for the non County portions of this road. The R/W grant number is U-53802. Beartooth will maintain the existing access roads in conjunction with the county and area oil and gas operators.

2. Access Roads to be Constructed and Reconstructed

See Map #1. The 0.2 mile of new road will be constructed as BLM-Moab Class III well access road. It will have an 18 foot wide driving surface with a total disturbed width of 35 to 55 feet depending on topography. The road will be ditched and crowned on flat ground and insloped 2% on sidehill cuts. Drainage design will utilize natural land contour and water will be carried across the road with water dips. No culverts will be used. No fences, modifications, nor cattleguards are necessary.

Road surfacing materials will be the existing native materials. The maximum road grade is 5%-6%. The road is flagged with orange flagging. The new access road is colored red on Map #1.

3. Location of Existing Wells

See Map No. 3

4. Location of Existing and/or Proposed Facilities if Well is Productive

(a) On Well Pad - See Plat No. 5

(b) Off Well Pad - See Facilities Map. Beartooth proposes to construct 2,500 feet of 2" buried steel pipeline. This line is depicted on Map #1. The pipeline will tie the North Bar X #4 to Beartooth's existing pipeline system. The tie in point will be on the North Bar X #2 well pad. This pipeline will be authorized as an amendment to Beartooth's pipeline right-of-way #U-53849.

5. Location and Type of Water Supply

The water source for this well is West Salt Creek. The pickup point is on Old Highway 6 & 50 approximately 2.5 miles west of Mack, Colorado.

6. Source of Construction Materials

No construction materials will be used other than native materials. Soil from cuts will be used in fills. No outside material will be brought in.

7. Methods for Handling Waste Disposal

Cuttings will be buried in the reserve pit at clean up. Garbage and other waste material will be contained in a trash cage. This cage will be dumped at an approved sanitary land fill. Human waste will be disposed of in chemically treated sanitary pits.

Drilling fluids will be contained in the reserve pit and left to evaporate. Any fluids produced during testing operations will be collected in a test tank. If a test tank is not available, the fluids will be contained in the reserve pit. Any spills of oil, gas, salt water or noxious fluid will be cleaned up and removed.

If the well is productive, produced water will be disposed of on site for 30 days only, or 90 days with the permission of the District Manager. After that time, application will be made for approval of permanent disposal method in compliance with old MMS Order NTL-2B, and the rules and regulations of the State of Utah.

8. Ancillary Facilities

Beartooth proposes to upgrade about 0.5 miles of existing ranch road in the SW $\frac{1}{4}$  Section 6, Township 17 South, Range 26 East, and construct 0.5 miles of new road in the SE $\frac{1}{4}$  Section 1, Township 17 South, Range 25 East, across BLM lands. This road would be maintained as a BLM Moab-Class III road. The road will serve as a pumper route and tie the Beartooth North Bar X # 1, 2, 3 and 4 gas wells together. The road will save about 15 miles of "driving around" by our pumpers.

Beartooth proposes to authorize this road as an amendment to our existing access road right-of-way number U-53802. Such authorization is hereby requested. The necessary filing fee (\$50.00) is being sent to you with this application for permit to drill.

9. Wellsite Layout

See Plat #2 - Pit and Pad Layout  
See Plat #3 - Cross Sections of Pit and Pad  
See Plat #4 - Rig Layout

The location will be constructed large enough to accommodate the drilling rig and associated equipment with allowance made for future completion and fracturing equipment.

The location construction will begin by stripping and stockpiling all available (4-6") topsoil. The stockpile will be along the north and south ends of the location.

9. (continued)

The reserve pit will be constructed along the west side of the well pad. The Pit will be fenced on three sides during drilling and closed on the fourth side at rig release. The fence will be maintained through completion and while the pit area is drying.

10. Plans for Reclamation of the Surface

If the well is productive, the reserve pit will be allowed to dry and then backfilled. All of the area not necessary for production will be resloped, covered with available topsoil and revegetated using a seed formula supplied by the BLM.

If the well is abandoned, the entire area of disturbance will be returned to a reasonable contour approximating the topography of the surrounding area. The topsoil will be distributed over the recontoured area and revegetated using the appropriate seed formula.

Clean-up will begin after completion rig release and resloping should be completed by the Fall of 1984.

11. Surface Ownership

All lands involving new construction are Federal lands.

12. Other Information

This APD includes an access road right-of-way application. See Item 8. The well site is on the Mancos desert floor. The vegetation is sparse and includes juniper, sagebrush, western wheatgrass, Indian rice grass and a few annual plants.

13. Lessee's or Operator's Representatives and Certification

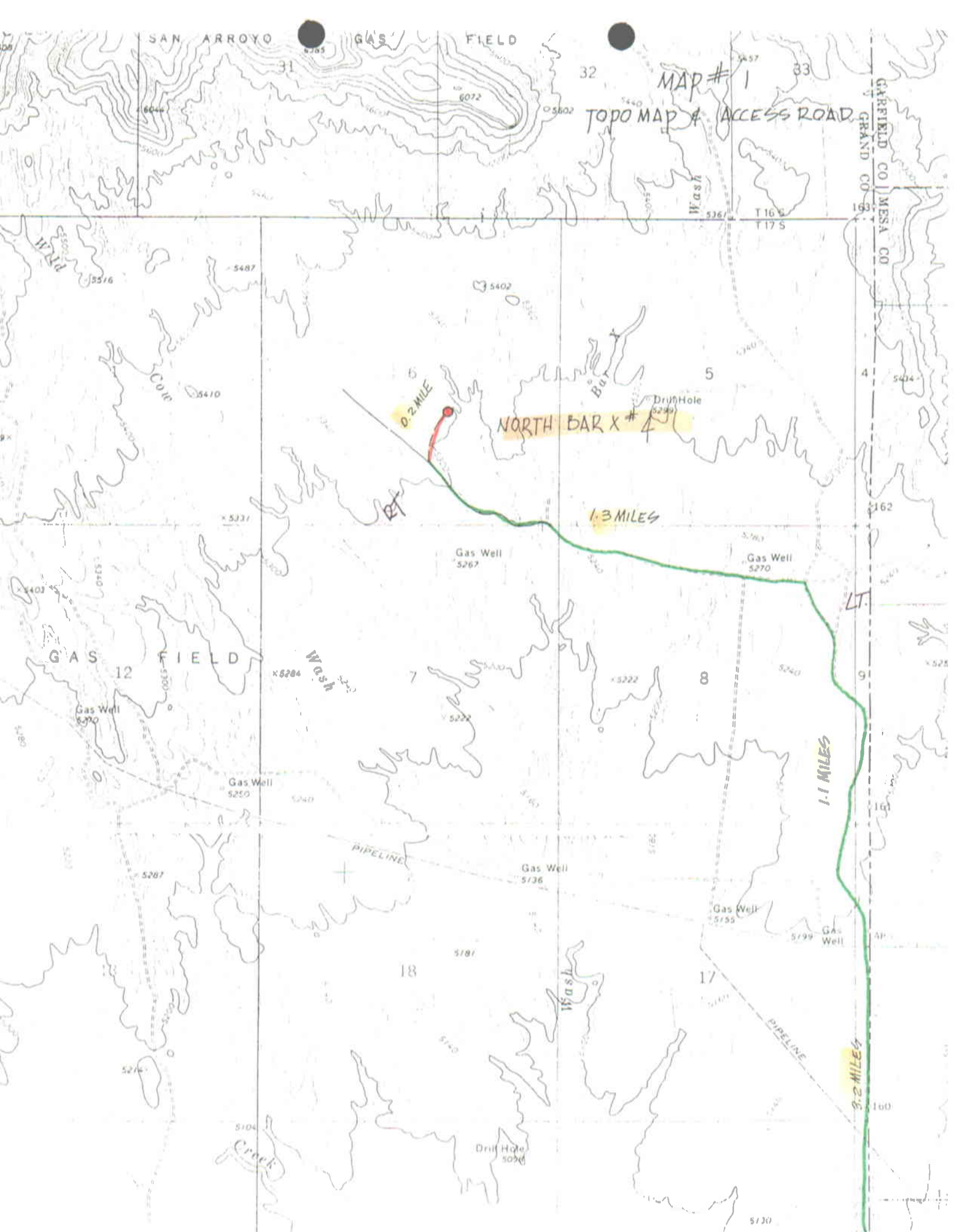
James G. Routson  
Beartooth Oil & Gas Company  
P. O. Box 2564  
Billings, Montana 59103  
Office Phone: 406-259-2451  
Home Phone: 406-245-8797

Ken Currey  
Beartooth Oil & Gas Company  
P. O. Box 1491  
Fruita, Colorado 81521  
Office/Home: 303-858-3257  
303-245-3660, Unit 5858

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Beartooth Oil & Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

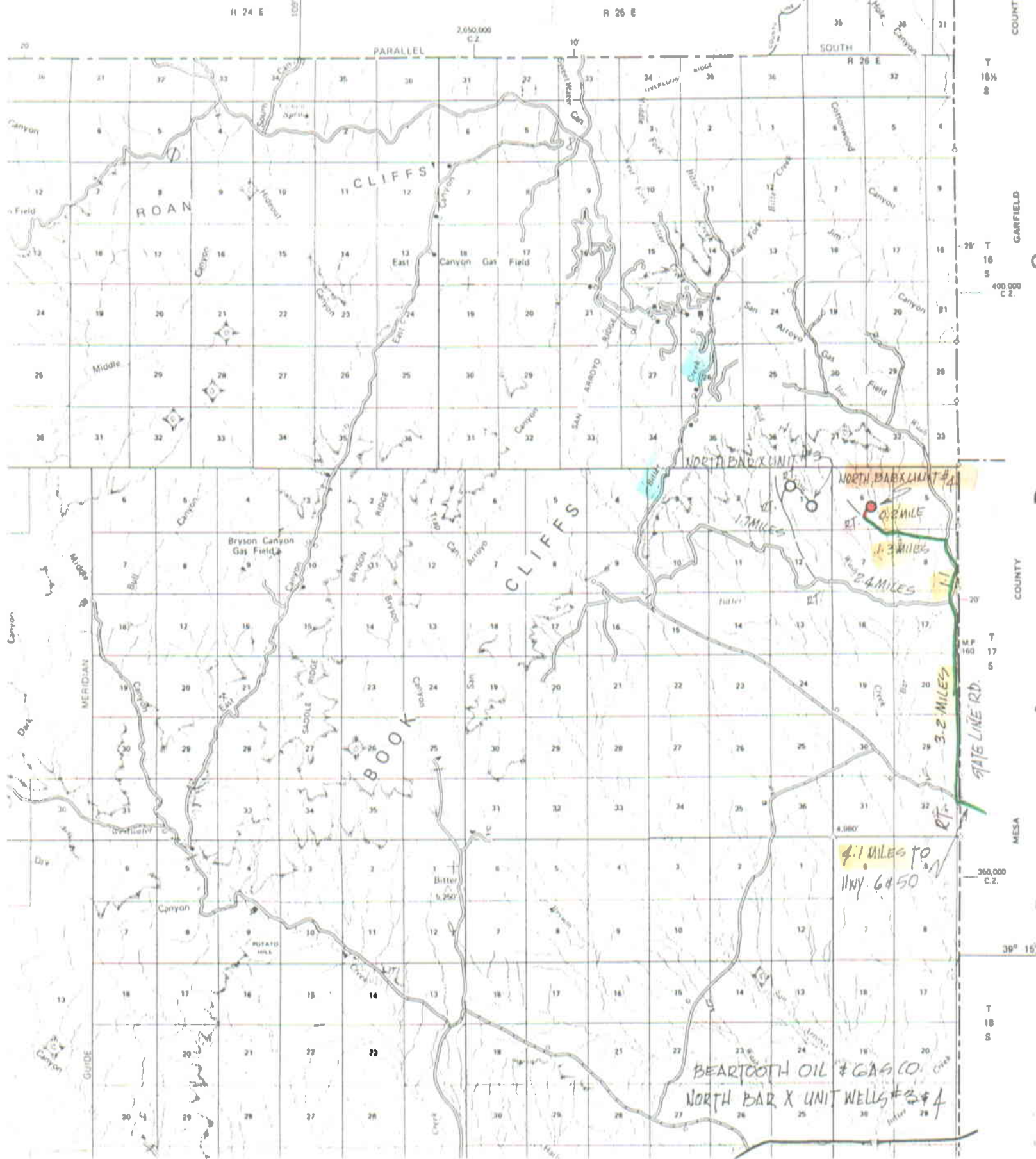
July 9, 1985  
Date

James G. Routson  
James G. Routson  
Consulting Petroleum Engineer



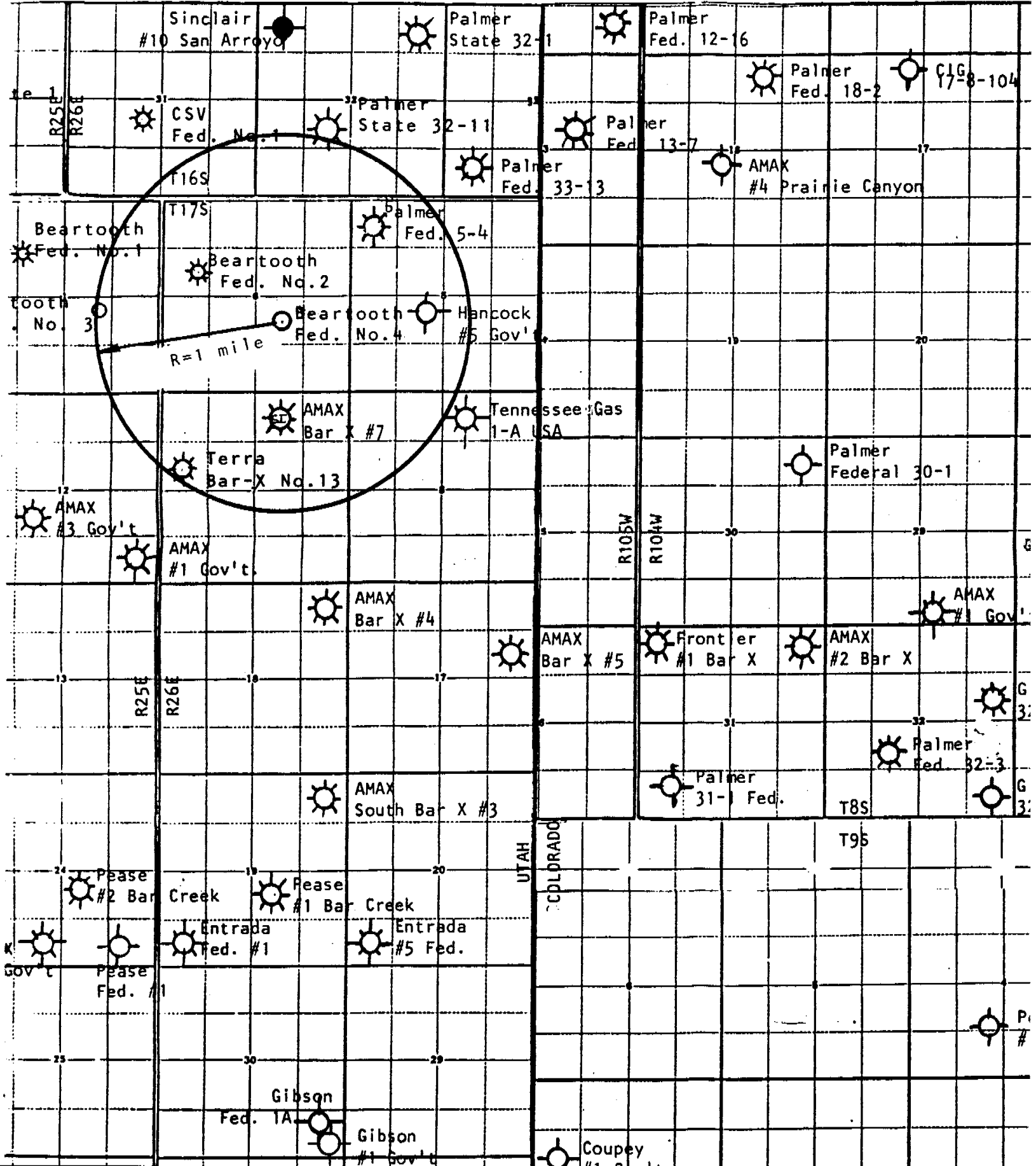
COUNTY

# MAP #2 VICINITY MAP



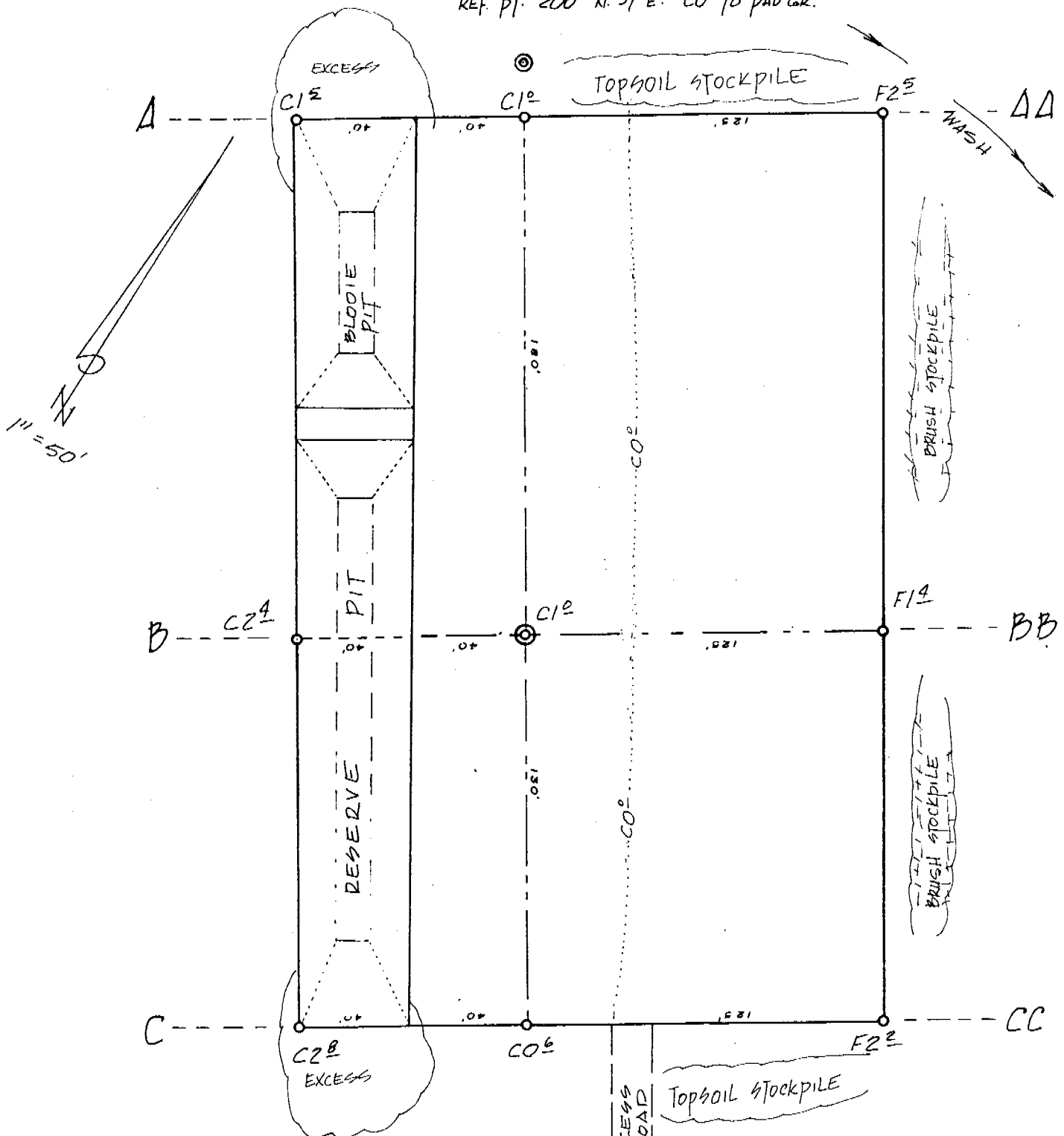


**Township** 8S & 17S, **Range** 104W & 26E, **County** Garfield, Mesa, & Grand



PLA # 2  
PIT & PAD LAYOUT

REF. PT. 200' N. 37° E. CO<sup>1</sup> TO PAD GR.



ESTIMATED C.Y. MATERIAL

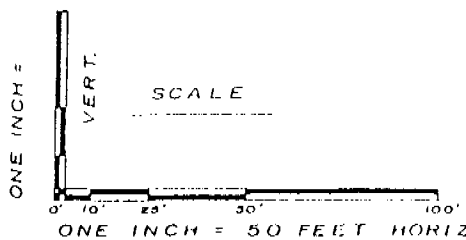
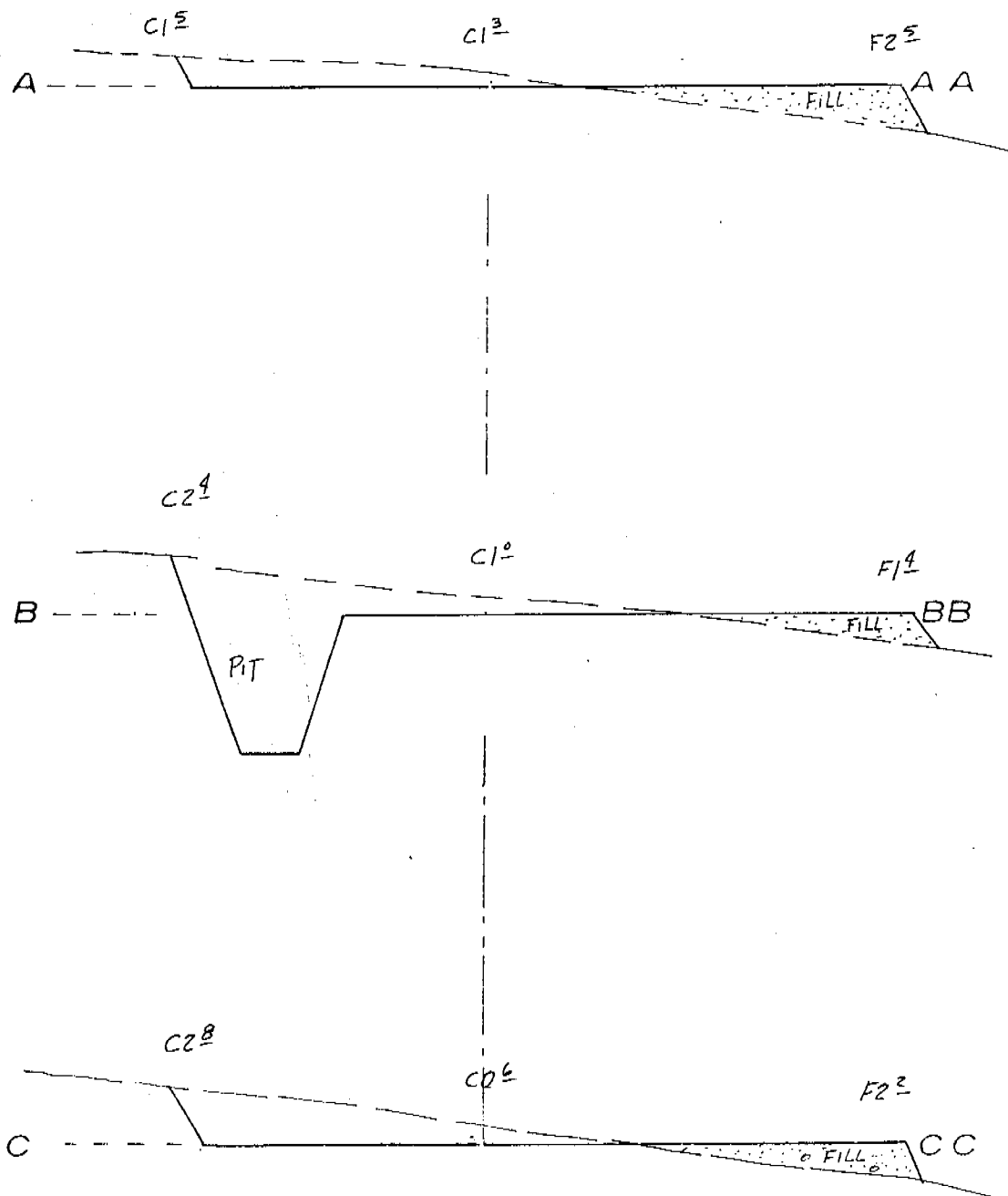
CUT	4114 C.Y.
FILL	976 C.Y.
Topsoil	1177 C.Y.
EXCESS	196 C.Y.

REF. PT. 200' 437° W  
C1<sup>1</sup> TO PAD GR.

BEARTOOTH OIL & GAS CO.  
NORTH BAR X # 4

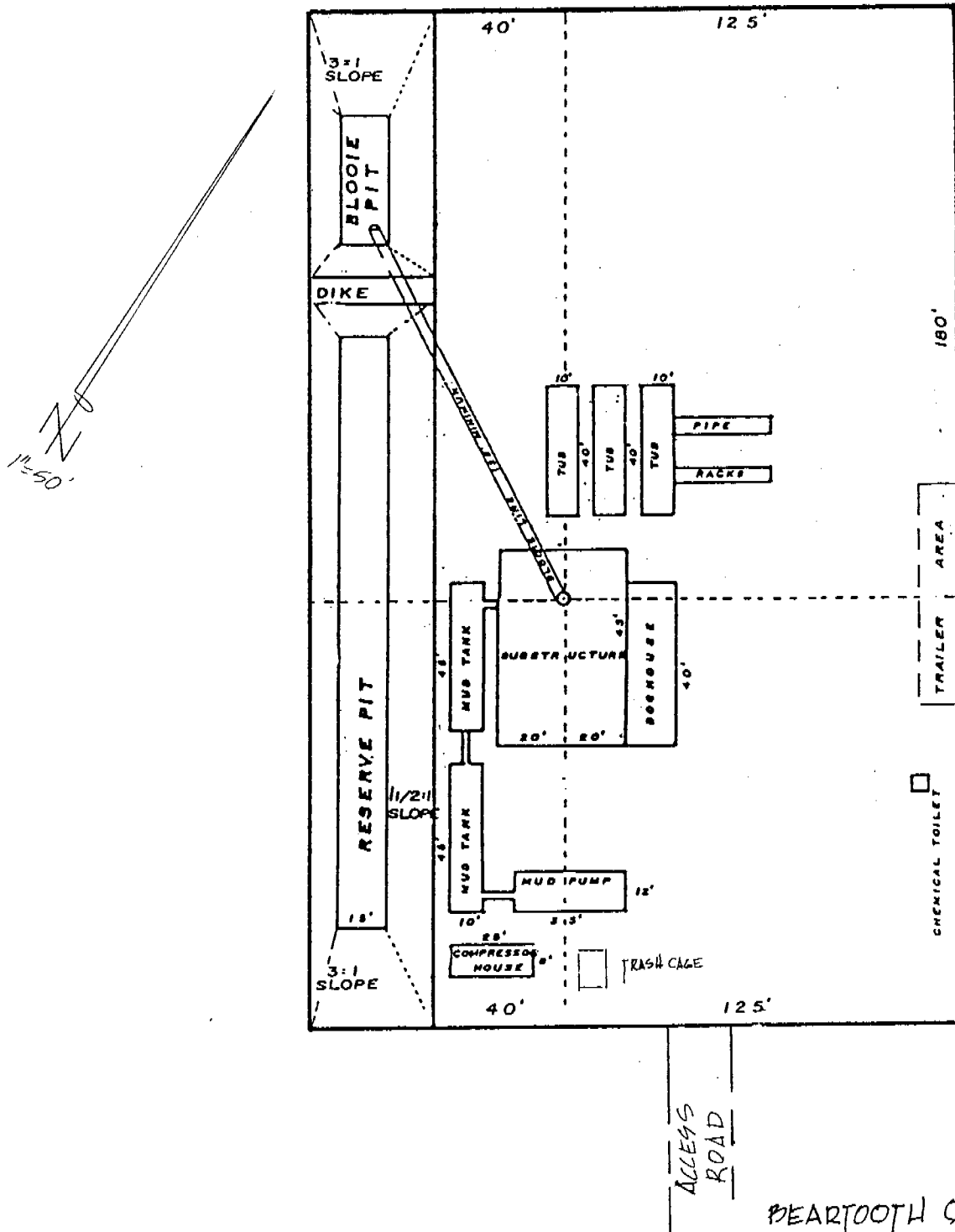
PLAT # 3

CROSS-SECTIONS  
OF PIT & PAD



BEARTOOTH OIL & GAS CO.  
NORTH BARX # 4

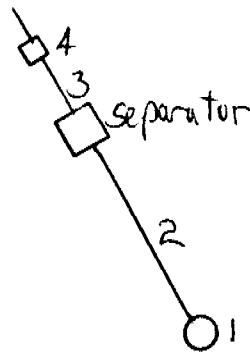
PLAT # 4  
RIG LAYOUT



BEARTOOTH OIL & GAS CO.  
NORTH BARX # 4

# PLAT NO. 5

## FACILITIES SCHEMATIC



5

1. Wellhead will be an 8-5/8" Larkin Fig. 92 or equivalent. Tubing head will be a 4 1/2" x 6"-900 Series with two 2" 3000 psi screwed valves. Tree will be 2" screwed x 2000 psi W.P.
2. Line between wellhead and separator will be approximately 100 feet in length and constructed of 2-3/8" .218 wall seamless, welded, wrapped and buried approximately 5 feet deep.
3. Line between separator and meter will be 4" or 4.028 OD seamless, welded, coated, wrapped and buried, and will be approximately 25 feet in length.
4. Meter run will be American 2" run, or equivalent, 1000 psi static rating, 100" of water differential rating.
5. Pit will be 10'x 10', enclosed by dikes and fenced.

OPERATOR Beartooth Oil & Gas Co. DATE 7-16-85  
WELL NAME North Bow X Fed. #4  
SEC NW SE 6 T 17S R 26E COUNTY Grand

43-019-31194  
API NUMBER

Fed  
TYPE OF LEASE

CHECK OFF:



PLAT



BOND



NEAREST WELL



LEASE



FIELD



POTASH OR  
OIL SHALE

PROCESSING COMMENTS:

Need water permits

APPROVAL LETTER:

SPACING: ☐ A-3 \_\_\_\_\_ UNIT



c-3-a

165-11 4/28/85  
CAUSE NO. & DATE



c-3-b



c-3-c

STIPULATIONS:

1-Water



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple - 3 Triad Center - Suite 350 - Salt Lake City, UT 84180-1203 - 801-538-5340

July 19, 1985

Beartooth Oil & Gas Company  
P. O. Box 2564  
Billings, Montana 59103

Gentlemen:

Re: Well No. North Bar X Federal 4 - NW SE Sec. 6, T. 17S, R. 26E  
2000' FSL, 2000' FEL - Grand County, Utah

Approval to drill the above-referenced gas well is hereby granted in accordance with the Order of Cause No. 165-11 dated February 28, 1985 subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

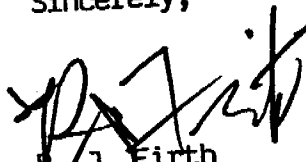
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.

Page 2  
Beartooth Oil & Gas Company  
Well No. North Bar X Federal 4  
July 17, 1985

4. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-019-31194.

Sincerely,



R. J. Firth  
Associate Director, Oil & Gas

as  
Enclosures  
cc: Branch of Fluid Minerals



## DIVISION OF OIL, GAS AND MINING

SPOUDDING INFORMATION

API #43-019-31194

NAME OF COMPANY: BEARTOOTH OIL & GASWELL NAME: NORTH BAR X FEDERAL #4SECTION NW SE 6 TOWNSHIP 17S RANGE 26E COUNTY GrandDRILLING CONTRACTOR Veco Drilling, IncRIG # SPUDDED: DATE 11-1-85TIME 4:00 PMHOW Air Drilled - 12 $\frac{1}{4}$ " to 313'DRILLING WILL COMMENCE 11-1-85 Veco Drilling Rig #1REPORTED BY Marilyn WakehamTELEPHONE # (406) 259-2451DATE 11-4-85 SIGNED Pam Kenna

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED

NOV 04 1985

DIVISION OF OIL  
GAS & MINING

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR  
BURTON W. HANCOCK

3. ADDRESS OF OPERATOR  
1799 Hamilton Avenue, San Jose, CA 95125

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

1094' FNL, 1267' FWL, Section 3

14. PERMIT NO.  
43-019-31195

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5682 GL, 5687 KB

5. LEASE DESIGNATION AND SERIAL NO.

U-05079

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
3-4

10. FIELD AND POOL, OR WILDCAT  
Undesignated

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

NW $\frac{1}{4}$  NW $\frac{1}{4}$  Sec. 3-T17S-R25E

12. COUNTY OR PARISH 13. STATE  
Grand Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

Status Report

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Well is currently shut-in, waiting on completion tools. Expect to complete in the Dakota Formation in November, 1985.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Jane D. Brantson*

TITLE

Consulting  
Petroleum Engineer

DATE

10/31/85

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate  
(Other instructions on reverse side)

Form approved  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED

NOV 06 1985

DIVISION OF OIL  
GAS & MINING

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR  
Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR  
P. O. Box 2564, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

2000' FSL, 2000' FEL - Section 6

14. PERMIT NO.  
43-019-31194

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5303' GL, 5314' KB

5. LEASE DESIGNATION AND SERIAL NO.  
U-41378

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
North Bar-X Federal No. 4

10. FIELD AND POOL, OR WILDCAT  
Undesignated

11. SEC., T., R., M., OR BLM. AND  
SURVEY OR AREA  
NW 1/4 SE 1/4 Section 6-T17S-R26E

12. COUNTY OR PARISH 13. STATE  
Grand Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

Status Report

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

/ Spudded 12-1/4" hole at 4:00 p.m., 11/1/85, with Veco Drilling, Inc., Rig No. 1.

Drilled to 313'. Ran 8-5/8", 24#, J-55 casing to 304' KB. Cemented to surface with 175 sx Class "G", 3% CaCl<sub>2</sub>, 1/4#/sack Celloflake. Pressure tested casing, BOPs, casing head to 1000 psig before drilling out.

18. I hereby certify that the foregoing is true and correct.

SIGNED James G. Routson  
James G. Routson

TITLE Cons. Petro. Engr.

DATE 11/4/85

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Budget Bureau No. 1004-0135  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

U-41378

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

North Bar-X No. 4

10. FIELD AND POOL, OR WILDCAT

Undesignated

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

NW $\frac{1}{4}$ SE $\frac{1}{4}$  Sec 6-T17S-R26E

12. COUNTY OR PARISH

Grand

13. STATE

UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

OIL WELL ☐ GAS WELL ☒ OTHER

RECEIVED

NOV 14 1985

DIVISION OF OIL  
GAS & MINING

2. NAME OF OPERATOR

Beartooth Oil & Gas Company

3. ADDRESS OF OPERATOR

P. O. Box 2564, Billings MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

2000' FSL, 2000' FEL, Section 6

14. PERMIT NO.

43-019-31194

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

5303' GL, 5314' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

FRACTURE TREAT

MULTIPLE COMPLETE

SHOOT OR ACIDIZE

ABANDON\*

REPAIR WELL

CHANGE PLANE

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREATMENT

ALTERING CASING

SHOOTING OR ACIDIZING

ABANDONMENT\*

(Other)

Status Report

(Note: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled 7-7/8" hole to 4014'. Ran 4-1/2", 11.6#, N-80 casing to 3996' KB.  
Cemented with 275 sx Thixotropic cement. Rig released 10:00 a.m., 11/7/85.  
Will start completion about 11/25/85.

Log Tops: Dakota Silt 3210'  
Dakota Sand 3299'  
Morrison 3539'

18. I hereby certify that the foregoing is true and correct

SIGNED

*James G. Routson*  
James G. Routson

TITLE

Con. Petro. Engr.

DATE

11/12/85

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

(See instructions on reverse side)

Expires August 31, 1985

10

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:		OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	DRY <input type="checkbox"/>	Other <input type="checkbox"/>	5. LEASE DESIGNATION AND SERIAL NO. U-41378	
b. TYPE OF COMPLETION:		NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. REVR. <input type="checkbox"/>	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Beartooth Oil & Gas Company						7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P. O. Box 2564, Billings, Montana 59103						8. FARM OR LEASE NAME Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State laws) At surface 2000' FSL, 2000' FEL At top prod. interval reported below Same as above At total depth Same as above						9. WELL NO. North Bar-X No. 4	
14. PERMIT NO. 43-019-31194						12. COUNTY OR PARISH Grand	
DATE ISSUED 7/17/85						13. STATE Utah	
15. DATE SPUDDED 11/1/85	16. DATE T.D. REACHED 11/6/85	17. DATE COMPL. (Ready to prod.) 11/26/85	18. ELEVATIONS (DF, RKB, RT, GB, ETC.)* 5303 GL, 5314 KB		19. ELEV. CASINGHEAD 5305		
20. TOTAL DEPTH, MD & TVD 4014	21. PLUG, BACK T.D., MD & TVD 3904	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY →	ROTARY TOOLS 0 - TD	CABLE TOOLS -		
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* Dakota sand - 3326 - 3480						25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN <u>GR-PDC-CNL</u> , <u>OIL</u> , <u>GR-CBL-VDI</u>						27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD		AMOUNT PULLED	
8-5/8"	24#, J-55	304	12-1/4"	175 sx Class "G" (to sfc)		None	
4-1/2"	11.6#, N-80	3996	7-7/8"	275 sx RFC (cement top-2750')		None	
29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
None					2-3/8"	3482	None
31. PERFORATION RECORD (Interval, size and number) .31" diameter holes, 10 total, as follows: 3341, 3345, 3347, 3360, 3362, 3400, 3409, 3462, 3465, 3475				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
				DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED		
				None			
33. PRODUCTION							
DATE FIRST PRODUCTION 11/23/85		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing			WELL STATUS (Producing or shut-in) Shut-in		
DATE OF TEST 11/23/85	HOURS TESTED 1	CHOKE SIZE 3/4"	PROD'N. FOR TEST PERIOD →	OIL—BBL. 97.25	GAS—MCF. 2334	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS. 175	CASING PRESSURE 175	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF. 2334	WATER—BBL.	OIL GRAVITY-API (CORR.)	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented						TEST WITNESSED BY Ralph Snow	
35. LIST OF ATTACHMENTS None - logs sent directly by Service Companies							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED <u>James G. Routson</u> James G. Routson		TITLE Cons. Petroleum Engr.			DATE 11/25/85		

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Dakota Sand	3326	3368	Gas	Mancos	Surface	Same
Dakota Sand	3400	3413	Gas	Frontier	2980	Same
Dakota Sand	3457	3480	Gas	Dakota Silt	3210	Same
				Dakota Sand	3298	Same
				Morrison	3559	Same
				Salt Wash	3843	Same

EXPRESS MAIL ROUTING SLIP

PAM

AK 8:35 12-12

TAMI

TH 8:45 12-12

VICKY

VC 9:05 12-12

CLAUDIA

CJ 9:06 12/12

STEPHANE

SB 10:15 "

CHARLES

CP 10:19 12-12

RULA

RM 10:30 12/12

MARY ALICE

MAP 10:36 12/12

CONNIE

CD 1042 12-12

MILLIE

PAM

AK 1055 12/12

RECEIVED

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
4241 State Office Building  
Salt Lake City, UT 84114

DEC 05 1985

DIVISION OF OIL  
GAS & MINING\*REPORT OF WATER ENCOUNTERED DURING DRILLING\*

Well Name & Number North Bar-X Federal No. 4

Operator Beartooth Oil & Gas Company Address P. O. Box 2564, Billings MT 59103

Contractor Veco Drilling, Inc. Address P. O. Box 1705, Grand Junction CO 81502

Location NW 1/4 SE 1/4 Sec. 6 T. 17S R. 26E County Grand

Water Sands

	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	From	To	Flow Rate or Head	Fresh or Salty
1.	None Encountered			
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops

Dakota Sand 3326, Dakota Sand 3400, Dakota Sand 3457

Remarks

- NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.
- (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.